JVC

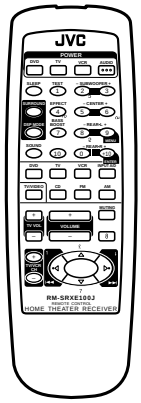
SERVICE MANUAL

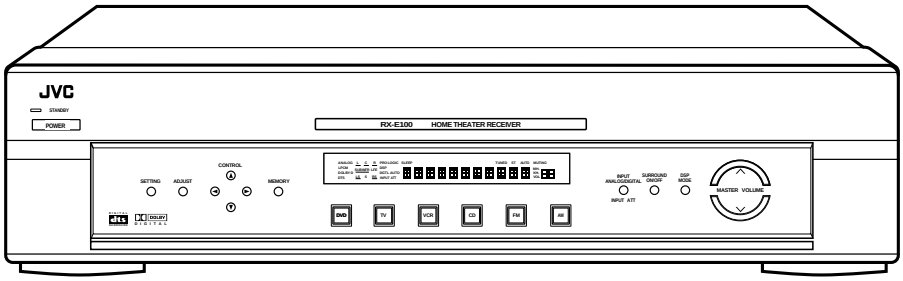
AUDIO/VIDEO CONTROL RECEIVER

RX-E100SL

Area Suffix

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





DOLBY DIGITAL

DIGITAL dts SURROUND

Contents

No.20955
May 2001

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.

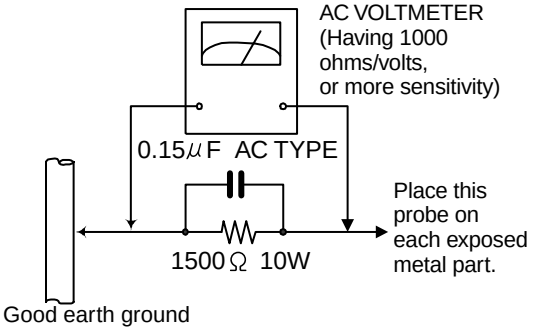
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. 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 (⚠) 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 currnet 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 1,500Ω 10W resistor paralleled by a 0.15μF 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 eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre 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

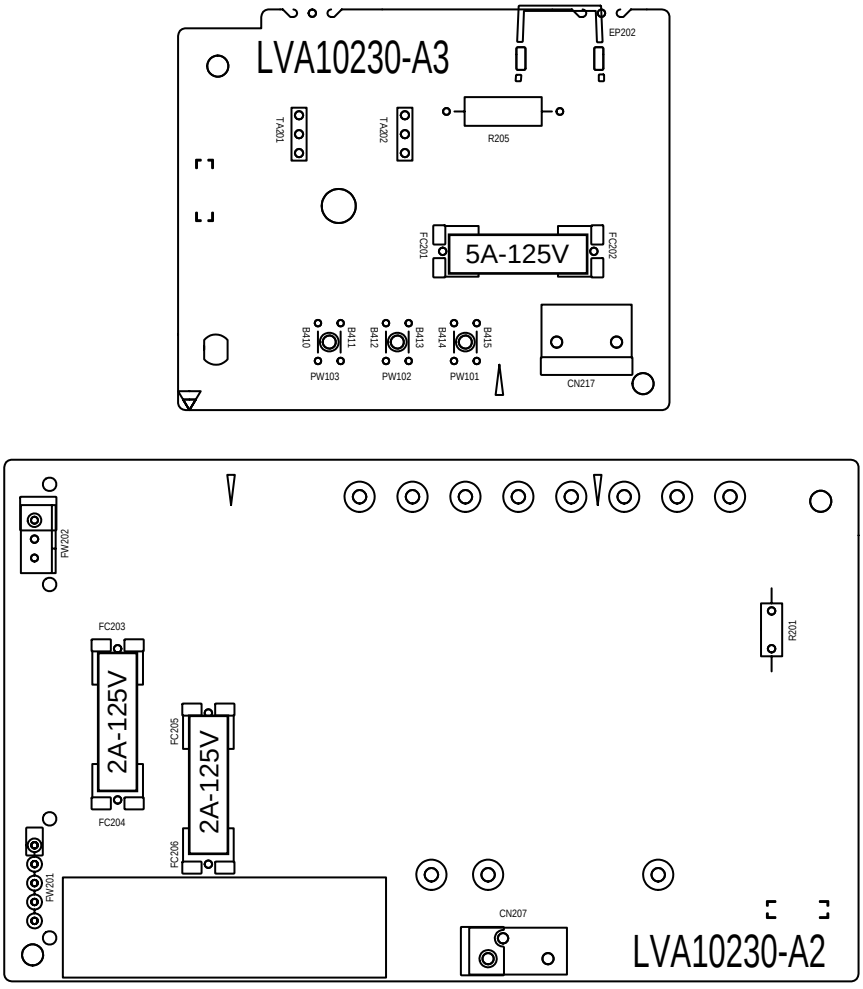
1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety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

⚠ CAUTION

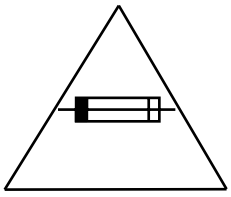
Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

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 "⚠" mark nearby are critical for safety.
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

Importance administering point on the safety



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



Caution: For continued protection against risk of fire, replace only with same type 5A/125V for F201, 2A/125V for F202 and F203. This symbol specifies type of fast operating fuse.

Précaution: Pour eviter risques de feux, remplacez le fusible de sureté de F201 comme le meme type que 5A/125V, et 2A/125V pour F202 et F203.
Ce sont des fusibles sûretes qui functionnes 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.

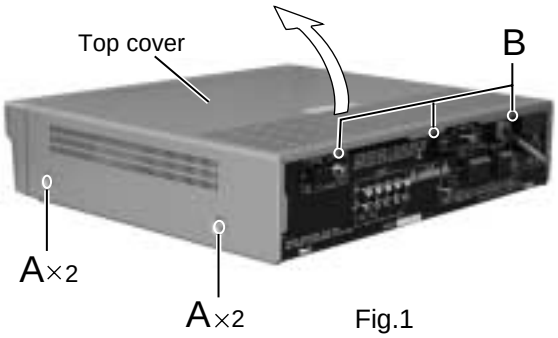


Fig.1

■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 CN411 on the audio board and CN204 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.

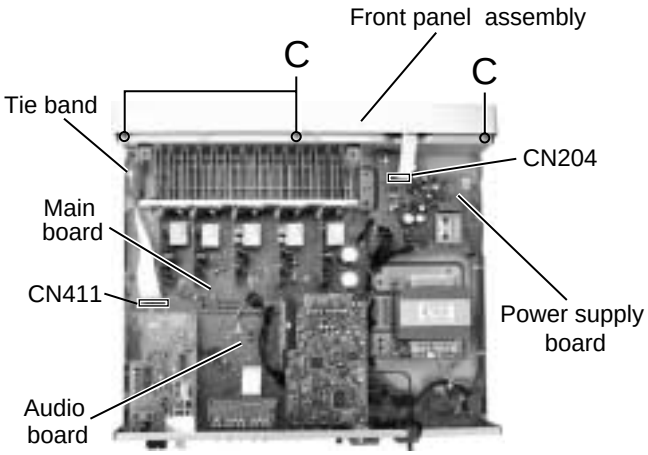


Fig.2

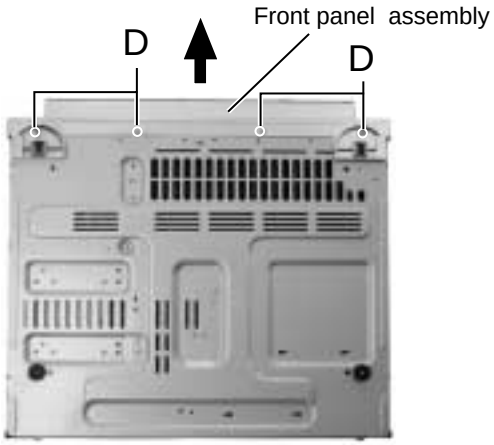


Fig.3

■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 eleven 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.

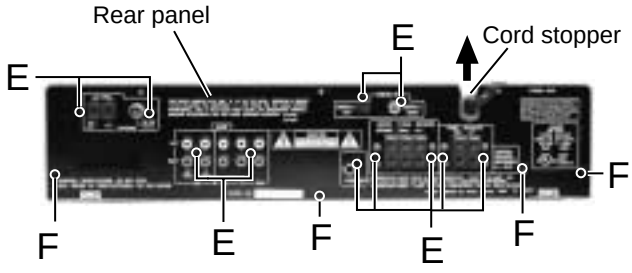


Fig.4

■Removing each board connected to the rear side of the audio board

(See Fig.5 to 7)

・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 tuner board and DSP board from connector CN111 and CN681 on the each Relay board.
3. Disconnect the Relay board from connector CN503 and CN501 on the audio board.
4. Disconnect the card wire connected to connector CN522 on the Input board.

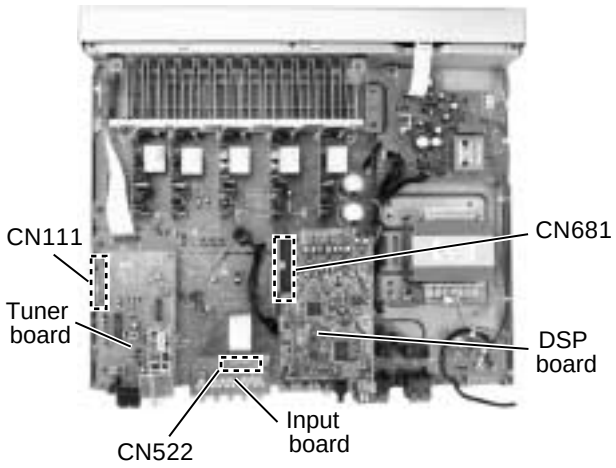


Fig.5

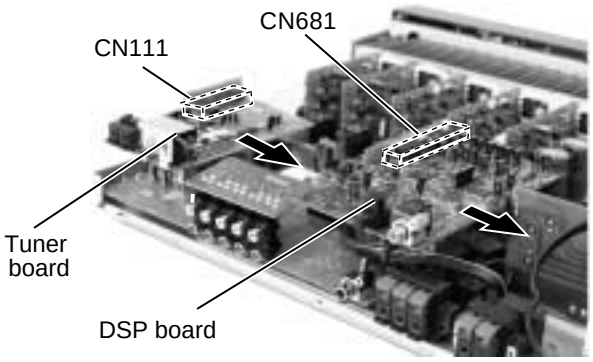


Fig.6

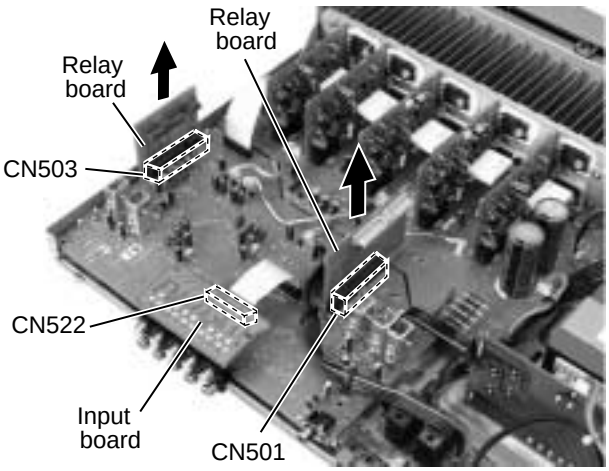


Fig.7

■Removing the audio board (See Fig.8)

・Prior to performing the following procedure, remove the top cover , the rear panel and the each board.

1. Disconnect the card wire from connector CN411 on the audio board.
2. Disconnect the harness from connector CN205 on the audio board.
3. Disconnect the harness from connector CN515, CN516, and CN517on the main board.
4. Remove the harness band fixing the harness.
5. Remove the three screws G attaching the audio board assembly.

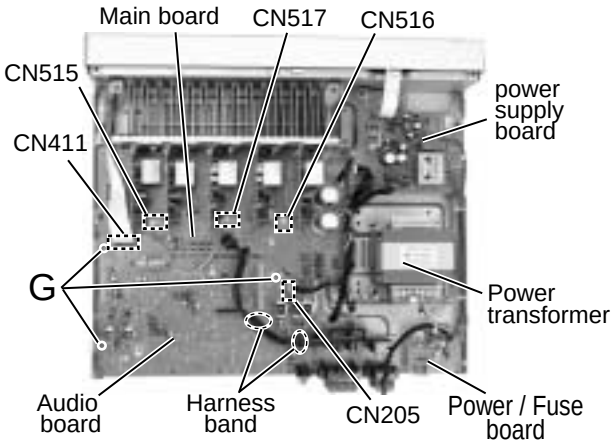


Fig.8

■Removing the main board (See Fig.9)

・Prior to performing the following procedure, remove the top cover, the rear panel and audio board.

1. Remove the harness band fixing the harness.
2. Disconnect the harness from connector CN707 on the power supply board .
3. Disconnect the harness from connector CN202 and CN206 on the main board .
4. Remove the five screws H and the two screws I attaching the main board.

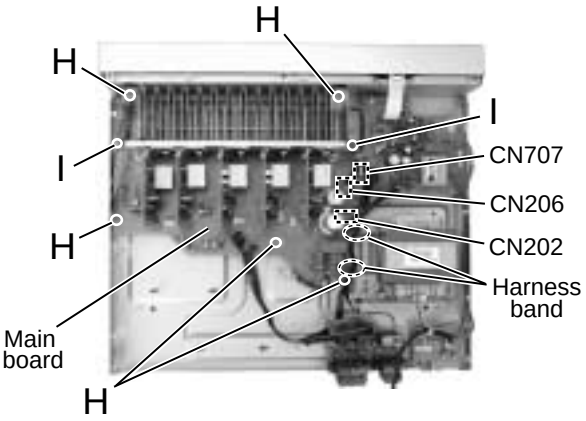


Fig.9

■Removing the Heat sink (See Fig.10 to 11)

1. Remove the ten screws K and four screws L attaching the heat sink.
2. Remove the two screws J attaching the heat sink from the rear side of main board.

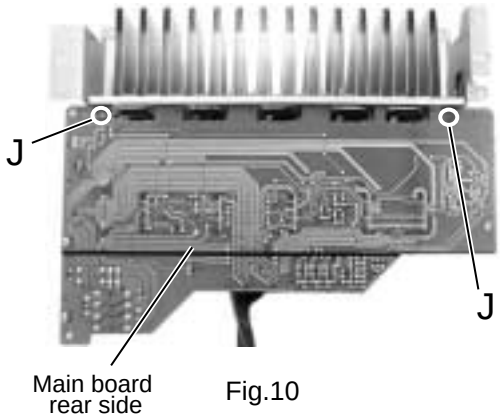


Fig.10

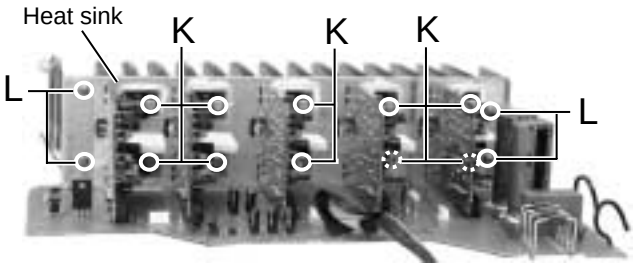


Fig.11

■Removing the power supply board (See Fig.12)

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

1. Disconnect the card wire from connector CN204 on the power supply board.
2. Disconnect the harness connected to connector CN201 and CN707 on the power supply board (If necessary, cut off the band fixing the harness on the side of the base chassis).
3. Disconnect the harness connected to connector CN206 on the main board
4. Remove the three screws N attaching the power supply board.
5. Unsolder the three harnesses connected to the power supply board.

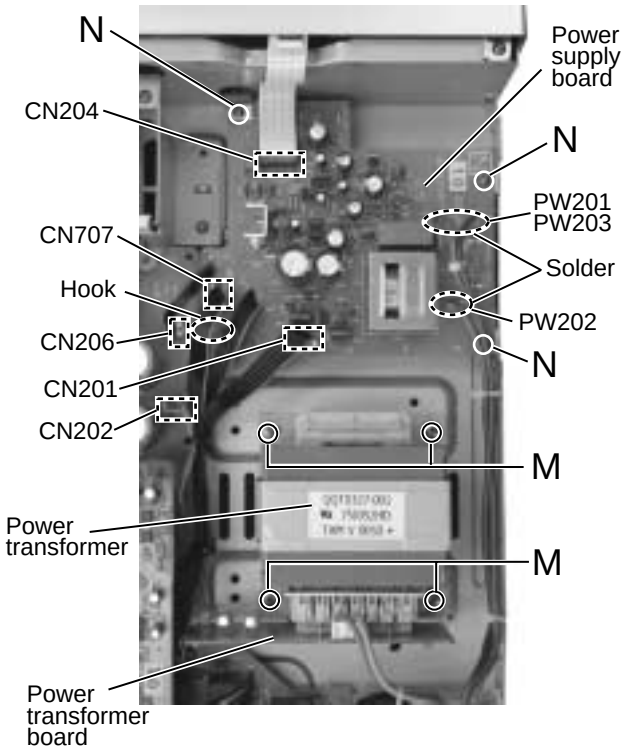


Fig.12

■Removing the power transformer (See Fig.12 and 13)

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

1. Disconnect the harness from connector CN217 on the power / fuse board (If necessary, cut off the tie band fixing the harness).
2. Disconnect the harness from connector CN201 and CN202 on the power supply board and main board.
3. Remove the four screws M attaching the power transformer.

■Removing the power / fuse board (See Fig.13)

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

1. Disconnect the harness connected to connector CN217 on the power / fuse board (If necessary, cut off the band fixing the harness on the side of the base chassis).
2. Unsolder the power cord and other harnesses connected to the power / fuse board.
3. Remove the screw O attaching the power / fuse board.

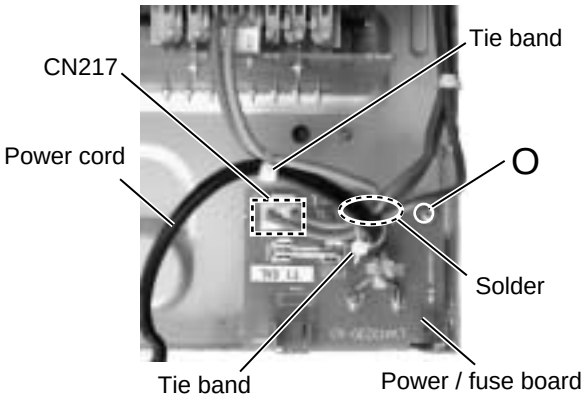


Fig.13

■Removing the system control board / power switch board (See Fig.14)

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

1. Remove the two screws P attaching the power switch board.

2. Remove the seven screws Q attaching the system control board.

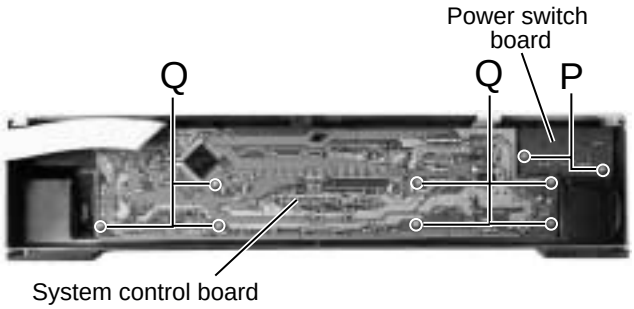


Fig.14

Adjustment method

■ Power amplifier section

Adjustment of idling current

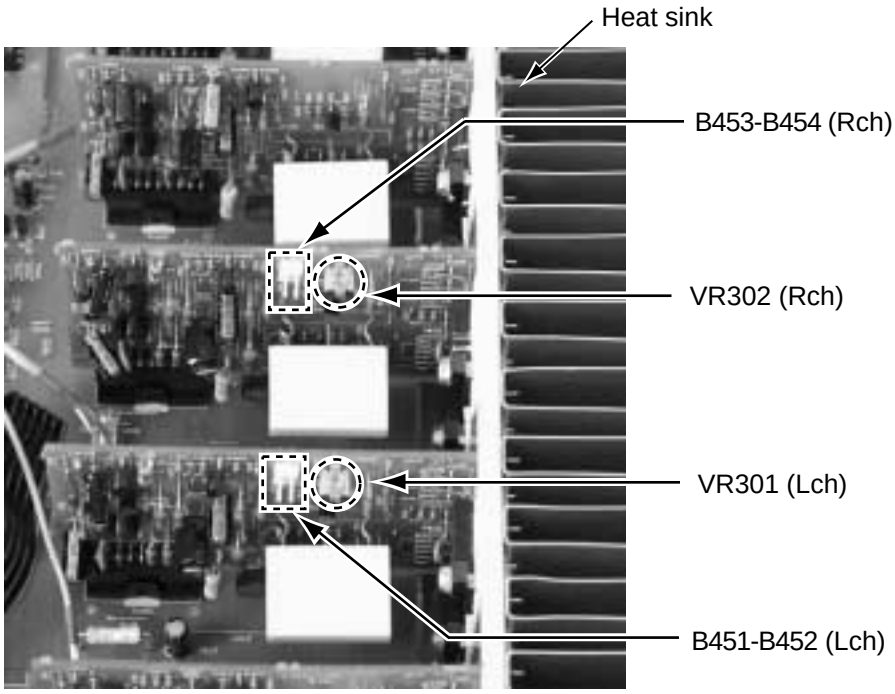
Measurement terminal	B451-B452(Lch) , B453-B454(Rch)
Adjustment volume	VR301(Lch) , VR302(Rch)

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. Prior to turning the power ON, fully turn the adjusting resistor (VR301(Lch),VR302(Rch)) counterclockwise direction and connect the DC voltmeter to the measuring terminal(B451-B452(Lch) , B453-B454(Rch)).
2. Set the surround mode OFF.
3. Adjust the resistor so that the measured value becomes 2mV immediately after turning the power ON.
4. When the idling current has been stable (about 30 minutes after the power is turned ON), confirm that the measured value falls within 1.0mV～10mV(2.3mV).

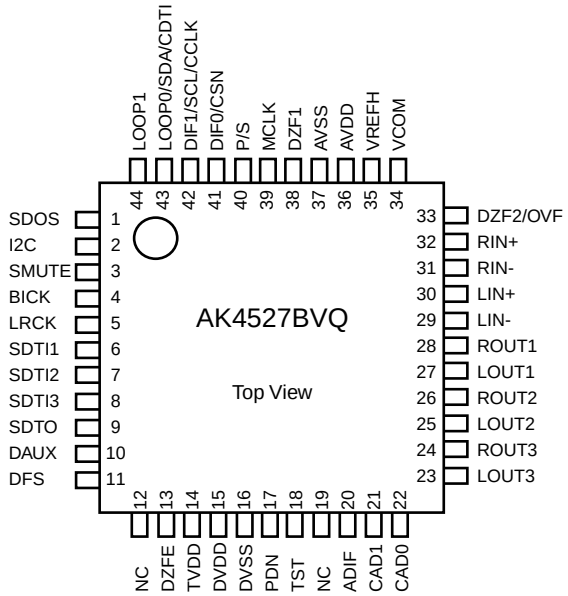
* It is not abnormal though the idling current might not become 0mA even if it is finished to turn variable resistance (VR301VR302) in the direction of counterclockwise.



Description of major ICs

■ AK4527B (IC601) : A/D,D/A Converter

1.Pin layout



2. Pin function (1/2)

AK4527(1/2)

No.	Pin name	I/O	Function
1	SDOS	I	SDTO Source Select Pin (Note 1) "L" : Internal ADC output, "H" : DAUX input
2	I2C	I	Control Mode Select Pin "L" : 3-wire Serial, "H" : I2C Bus
3	SMUTE	I	Soft Mute Pin (Note 1) 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	DAUX	I	Sub Audio Serial Data Input Pin
11	DFS	I	Double Speed Sampling Mode Pin (Note 1) "L" : Normal Speed, "H" : Double Speed
12	NC	-	No Connect No internal bonding.
13	DZEF	I	Zero Input Detect Enable Pin "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	TVDD	-	Output Buffer Power supply Pin, 2.7V~5.5V
15	DVDD	-	Digital Power Supply Pin, 4.5V~5.5V
16	DVSS	-	De-emphasis Pin, 0V
17	PDN	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	TST	I	Test Pin This pin should be connected to DVSS.

Pin function (2/2)

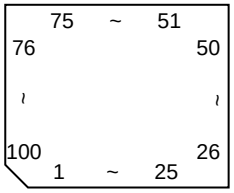
AK4527(1/2)

No.	Pin name	I/O	No Connect Function
19	NC	-	No internal bonding.
			Analog Input Format Select Pin
20	ADIF	I	"H" : Full-differential input, "L" : Single-ended input
			Chip Address 1 Pin
21	CAD1	I	Chip Address 0 Pin
22	CAD0	I	DAC3 Lch Analog Output Pin
23	LOUT3	O	DAC3 Rch Analog Output Pin
24	ROUT3	O	DAC2 Lch Analog Output Pin
25	LOUT2	O	DAC2 Rch Analog Output Pin
26	ROUT2	O	DAC1 Lch Analog Output Pin
27	LOUT1	O	DAC1 Rch Analog Output Pin
28	ROUT1	O	Lch Analog Negative Input Pin
29	LIN-	I	Lch Analog Positive Input Pin
30	LIN+	I	Rch Analog Negative Input Pin
31	RIN-	I	Rch Analog Positive Input Pin
32	RIN+	I	Zero Input Detect 2 Pin (Note 2)
33	DZF2	O	When the input data of the group 1 follow total 8192LRCK cycles with "0" input data, this pin goes to "H".
			Analog Input Overflow Detect Pin (Note 3)
	OVF	O	This pin goes to "H" if the analog input of Lch or Rch is overflows.
			Common Voltage Output Pin,AVDD/2
34	VCOM	O	Large external capacitor around 2.2uF is used to reduce power-supply noise.
			Positive Voltage Reference Input Pin,AVDD
35	VREFH	I	Analog Power Supply Pin,4.5V~5.5V
36	AVDD	-	Analog Ground Pin,0V
37	AVSS	-	Zero Input Detect 1 Pin (Note 2)
38	DZF1	O	When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
			Master Clock Input Pin
39	MCLK	I	Parallel / Serial Select Pin
40	P/S	I	"L" : Serial control mode, "H" : Parallel control mode
			Audio Data Interface Format 0 Pin in parallel mode
41	DIF0	I	Chip select pin in 3-wire serial control mode
	CSN	I	This pin should be connected to DVDD at I2C bus control mode
			Audio Data Interface Format 1 Pin in parallel mode
42	DIF1	I	Control Data Clock Pin in serial control mode
	SCL/CCLK	I	I2C = "L" : CCLK(3-wire Serial), I2C = "H" : SCL(I2CBus)
			Loopback Mode 0 Pin in parallel control mode
43	LOOP0	I	Enables digital loop-back from ADC to 3 DACs.
			Control Data Input Pin in serial control mode
	SAD/CDTI	I/O	I2C = "L" : CDTI(3-wire Serial), I2C = "H" : SDA(I2CBus)
			Loopback Mode 1 Pin (Note 1)
44	LOOP1	I	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 DZFME = "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.

■ UPD784215AGC103 (IC671) : UNIT CPU

1.Pin layout



2.Pin function

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	$\overline{\text{RESET}}$	I	System reset signal input
16	$\overline{\text{AUTODATA}}$	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	$\overline{\text{RSTDET}}$	I	Reset signal input
23	AVDD	-	Power supply terminal
24	AVREF0	-	Connect to GND
25~32		-	Connect to GND
33	AVSS	-	Connect to GND
34,35		-	Non connect
36	AV REF1	-	Power supply terminal
37,38	RX,TX	-	Not use
39		-	Non connect
40	DSPCOM	I	Communication port from IC701
41	DSPSTS	O	Status communication port to IC701
42	$\overline{\text{DSPCLK}}$	I	Clock input from IC701
43	DSPRDY	I	Ready signal input from IC701
44		-	Non connect
45,46	MIDIO_IN/OUT	I/O	Interface I/O terminal with microcomputer
47	$\overline{\text{MICK}}$	O	Interface I/O terminal with microcomputer of clock signal
48	$\overline{\text{MICS}}$	O	Interface I/O terminal with microcomputer of chip select
49	$\overline{\text{MILP}}$	O	Interface I/O termonal with microcomputer
50	$\overline{\text{MIACK}}$	O	Interface I/O termonal with microcomputer
51,52		-	Non connect
53	$\overline{\text{DSPRST}}$	O	Reset signal output of DSP
54~63		-	Non connect
64,65	CDTI/CDTO	I/O	Interface I/O terminal with microcomputer
66	$\overline{\text{CCLK}}$	O	Interface I/O terminal with microcomputer of clock signal
67	$\overline{\text{CS}}$	O	Interface I/O terminal with microcomputer of chip select
68	XTS	O	OSC Select
69,70		-	Non connect
71	$\overline{\text{PD}}$	O	Reset signal output
72	GND	-	Connect to GND
73~80		-	Non connect
81	VDD	-	Power supply
82	$\overline{\text{3D-ON}}$	-	Non connect
83	3D-ON	O	Switch at output destination of surround channel
84	ANA/T-TONE	O	Test tone control
85	REF-MIX	O	Control at output destination of LFE channel
86		-	Non connect
87	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
90~93	ASW1~4	O	Selection of digital input selector
94	TEST	-	Test terminal
95~100		-	Non connect

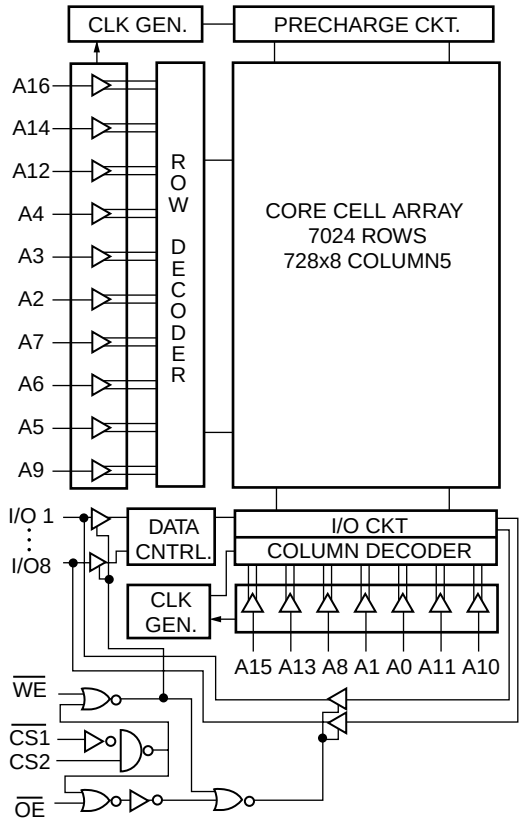
■ TC9446F-014 (IC631) : Digital signal processor for dolby digital (AC-3) / MPEG2 audio decode

Pin No.	Symbol	I/O	Function
1	$\overline{RST}$	I	Reset signal input terminal (L:reset H:Operation usually)
2	MIMD	I	Microcomputer interface mode selection input terminal (L:serial H:IC bus)
3	$\overline{MICS}$	I	Microcomputer interface chip select input terminal
4	$\overline{MILP}$	I	Microcomputer interface latch pulse input
5	MIDIO	I/O	Microcomputer interface data I/O terminal
6	$\overline{MICK}$	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	$\overline{TEST0,1}$	I	Test input terminal 0/1 (L:test H:operation usually)
29~31	LRCKOB,BCKOB,TXO	-	Non connect
32,33	$\overline{TEST2,3}$	I	Test input terminal (L:test H:operation usually)
34	RX	I	SPDIF input terminal
35	VSS	-	Ground terminal for digital circuit
36	$\overline{TSTSUB0}$	I	Test sub input terminal 0 (L:test H:operation usually)
37	FCONT	O	VCO Frequency control output terminal
38,39	$\overline{TSTSUB1,TSTSUB2}$	I	Test sub input terminal 1,2 (L:test H:operation usually)
40	PDO	O	Phase error 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	AMP.input terminal for LPF
44	AMPO	O	AMP.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 detection output terminal
49	VSS	-	Ground terminal for digital circuit
50	$\overline{WR}$	O	External SRAM writing signal output terminal
51	$\overline{OE}$	O	External SRAM output enable signal output terminal
52	$\overline{CE}$	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 termonal for oscillation circuit
98,99	XO,XI	I/O	Oscillation I/O terminal
100	VDDX	-	Power supply terminal for oscillation circuit

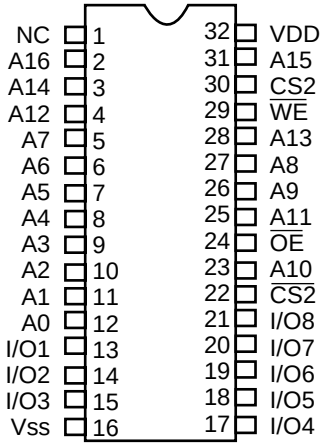
DLCKS terminal	DLONterminal	DLL clock setting
L	L	SCKI input (DLL circuit OFF)
L	H	Four times XI clock
H	L	Three times XI clock
H	H	Six times XI clock

■ W24L010AJ-12 (IC641) : CMOS SRAM

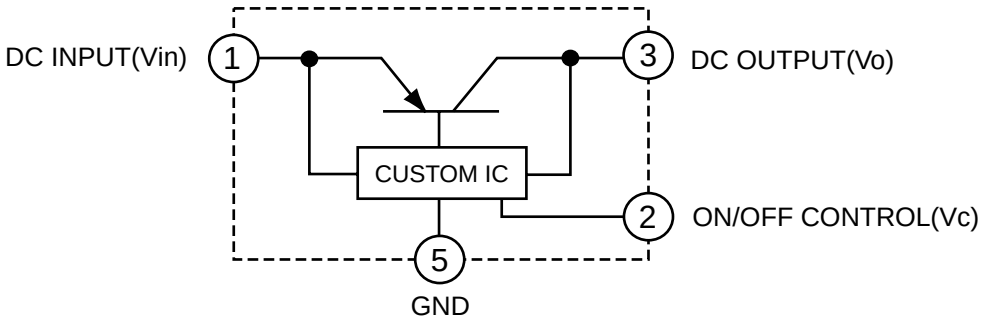
Block diagram



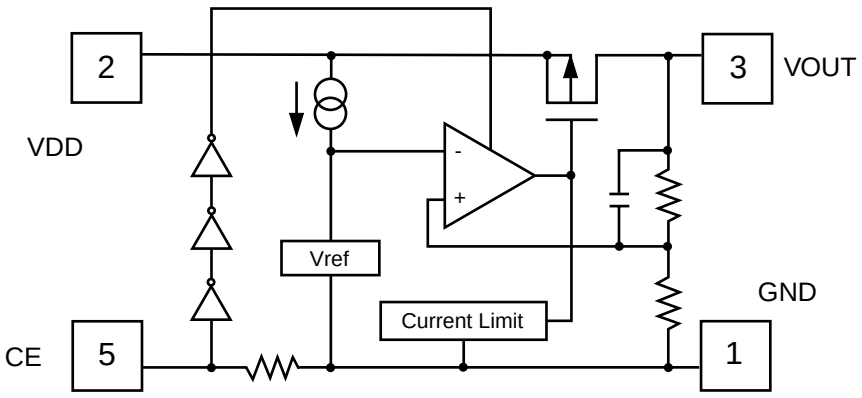
Pin layout



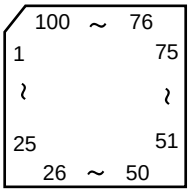
■ PQ3DZ53 (IC681) : Regulator IC



■ RN5RZ33BA (IC683) : Voltage regurator



■ MN101C35DHR (IC401) : System controller



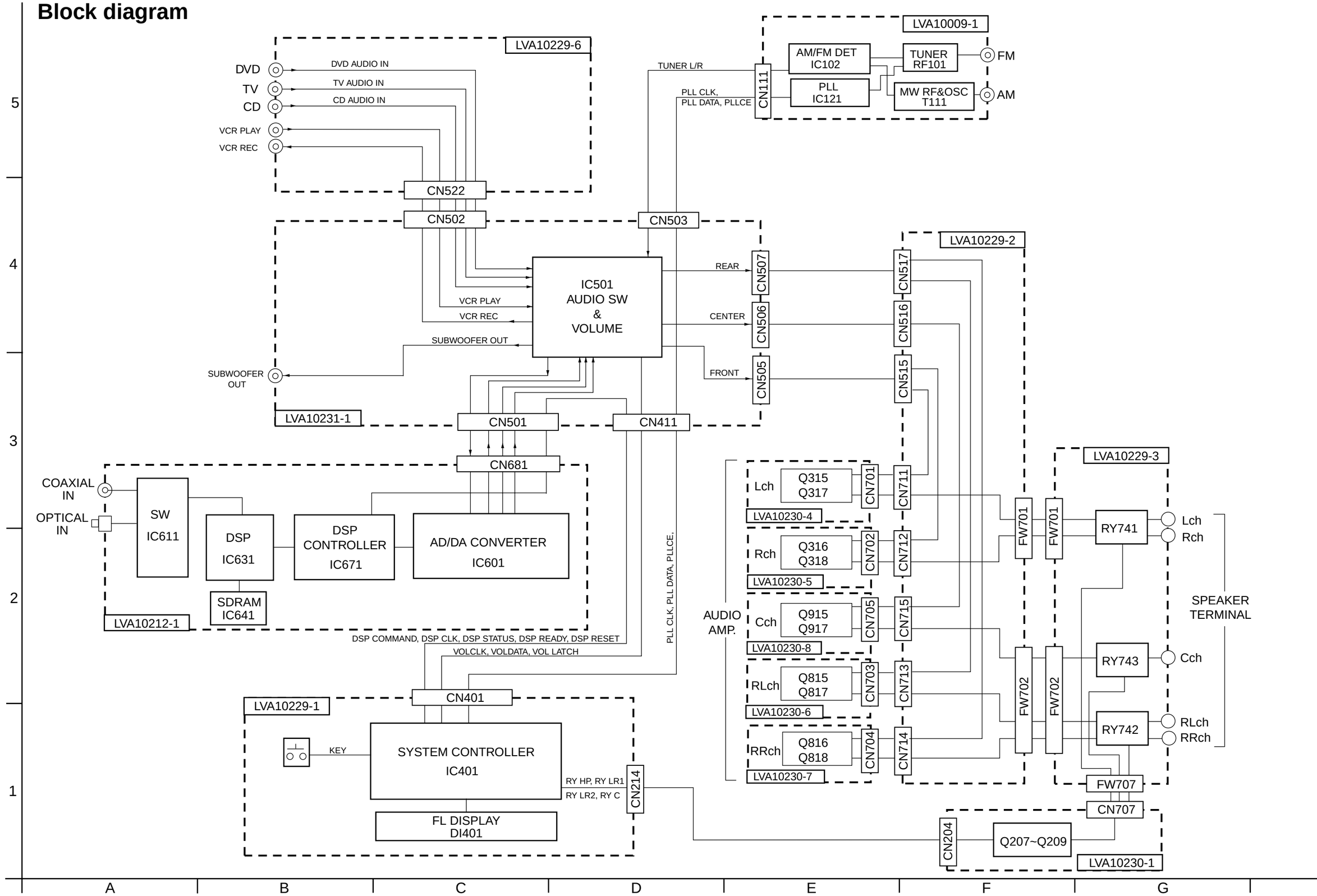
Pin function (1/2)

Pin No.	Symbol	I/O	Function
1	TXD/SB00/P00	-	GND
2	RXD/SBI0/P01	-	GND
3	SBT0/P02	I	PROTECTOR INPUT
4	SB01/P03	-	GND
5	SBI1/P04	-	GND
6	SBT1/P05	I	GND (TV LINK INPUT)
7	BUZZER/P06	-	NC
8	VDD	-	POWER SUPPLY +5V
9,10	OSC1,2	I/O	OSC (8MHz)
11	VSS	-	GND
12	XI	-	GND
13	X0	O	OPEN
14	MMOD	-	GND
15	VREF-	-	GND
16	AN0/PA0	I	KEY INPUT 1 (7KEY)
17	AN1/PA1	I	KEY INPUT 2 (7KEY)
18	AN2/PA2	I	KEY INPUT 3 (7KEY)
19	AN3/PA3	I	CHIP SELECT 1
20	AN4/PA4	I	CHIP SELECT 2
21	AN5/PA5	-	NC
22	AN6/PA6	-	NC
23	AN7/PA7	-	NC
24	VREF+	-	POWER SUPPLY +5V
25	P07	-	NC
26	RST /P27	I	RESET INPUT
27	TM0IO/P10	O	RDS SDA IN/OUT
28	TM1IO/P11	I	RDS SCL IN/OUT
29	TM2IO/P12	O	TUNER CE
30	TM3IO/P13	I	TUNER MUTE
31	TM4IO/P14	O	TUNER CLK
32	P15	I/O	TUNER DATA IN/OUT
33	IRQ0/P20	-	GND
34	SENS/IRQ1/P21	I	REMOCON INPUT
35	IRQ2/P22	I	INH INPUT
36	IRQ3/P23	I	RDS DAVN INPUT
37	IRQ4/P24	I	TUNED INPUT
38	P25	I	STEREO INPUT
39	SB02/P30	O	DSP MICON COMMAND
40	SBI2/P31	I	DSP MICON STATUS

Pin function (2/2)

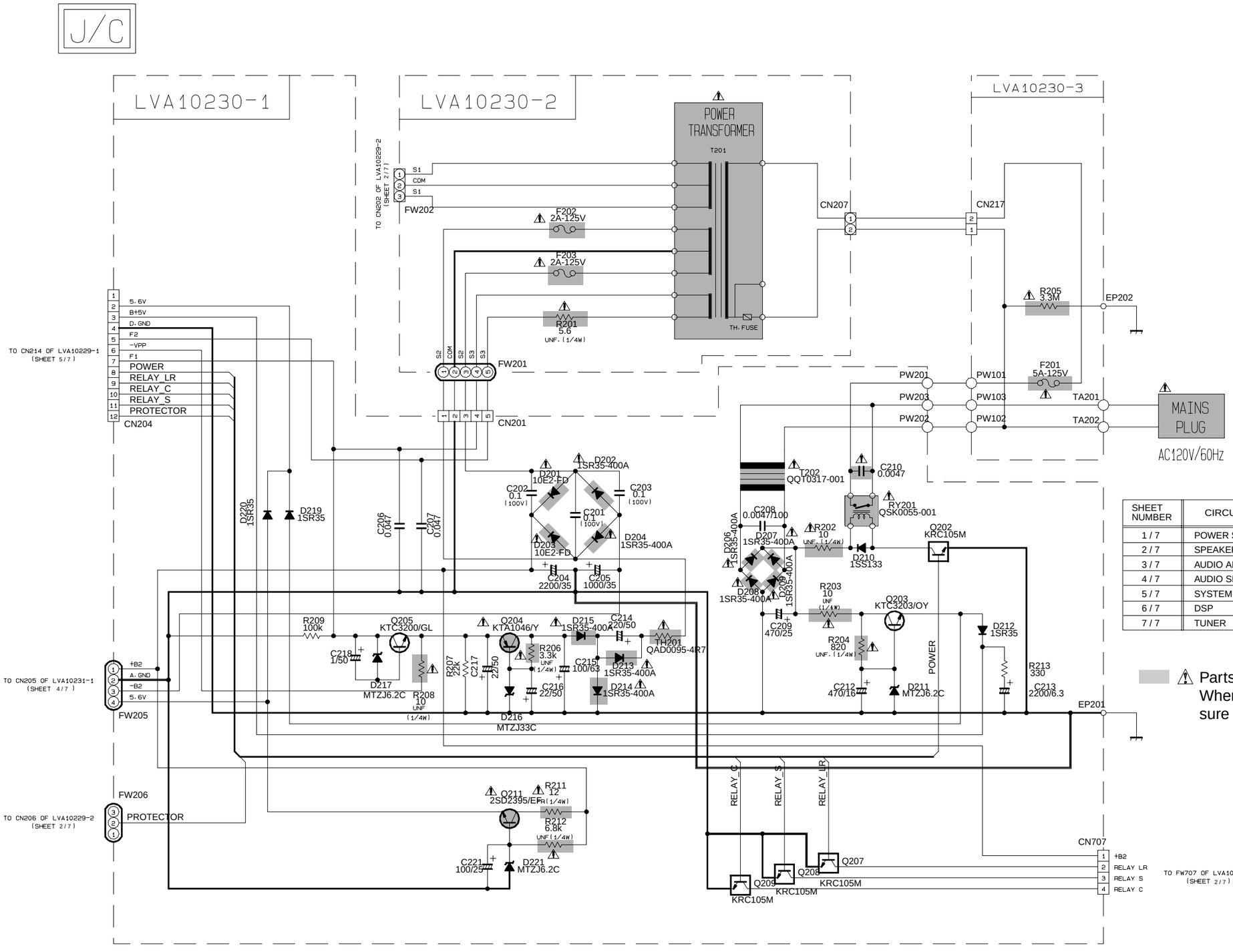
Pin No.	Symbol	I/O	Function
41	SBT2/P32	O	DSP MICON CLK
42	P50	O	DSP MICON READY
43	P51	O	DSP MICON RESET
44	P52	O	M61501 CLK
45	P53	O	M61501 DATA
46	P54	O	M61501 LATCH
47 ~ 50	DGT17/P67 ~ DGT14/P64	-	NC
51 ~ 54	DGT13/P63 ~ DGT10/P60	O	GRID 1 ~ GRID 4
55	DGT9/P41	O	GRID 5
56	DGT8/P40	O	GRID 6
57 ~ 63	SEG0/DGT7/P77 ~ SEG6/DGT1/P71	O	GRID 7 ~ GRID 13
64	SEG7/DGY0/P7	O	SEGMENT 17
65 ~ 72	SEG8/P87 ~ SEG15/P80	O	SEGMENT 18 ~ SEGMENT 25
73 ~ 88	SEG16/P97 ~ SEG31/PB3	O	SEGMENT 1 ~ SEGMENT 16
89	SEG32/PB2	O	STANDBY LED
90	SEG33/PB1	-	NC
91	SEG34/PB0	-	NC
92	SEG35/PD7	-	NC
93	SEG36/PD6	O	FRONT SPK RELAY
94	SEG37/PD5	O	CENTER SPK RELAY
95	SEG38/PD4	O	REAR SPK RELAY
96	SEG39/PD3	O	POWER ON
97	SEG40/PD2	O	SWITCH MODE ON
98	SEG41/PD1	O	SUBWFR MUTE
99	SEG42/PD0	O	SOURCE MUTE
100	VPP	O	VPP

Block diagram



Standard schematic diagrams

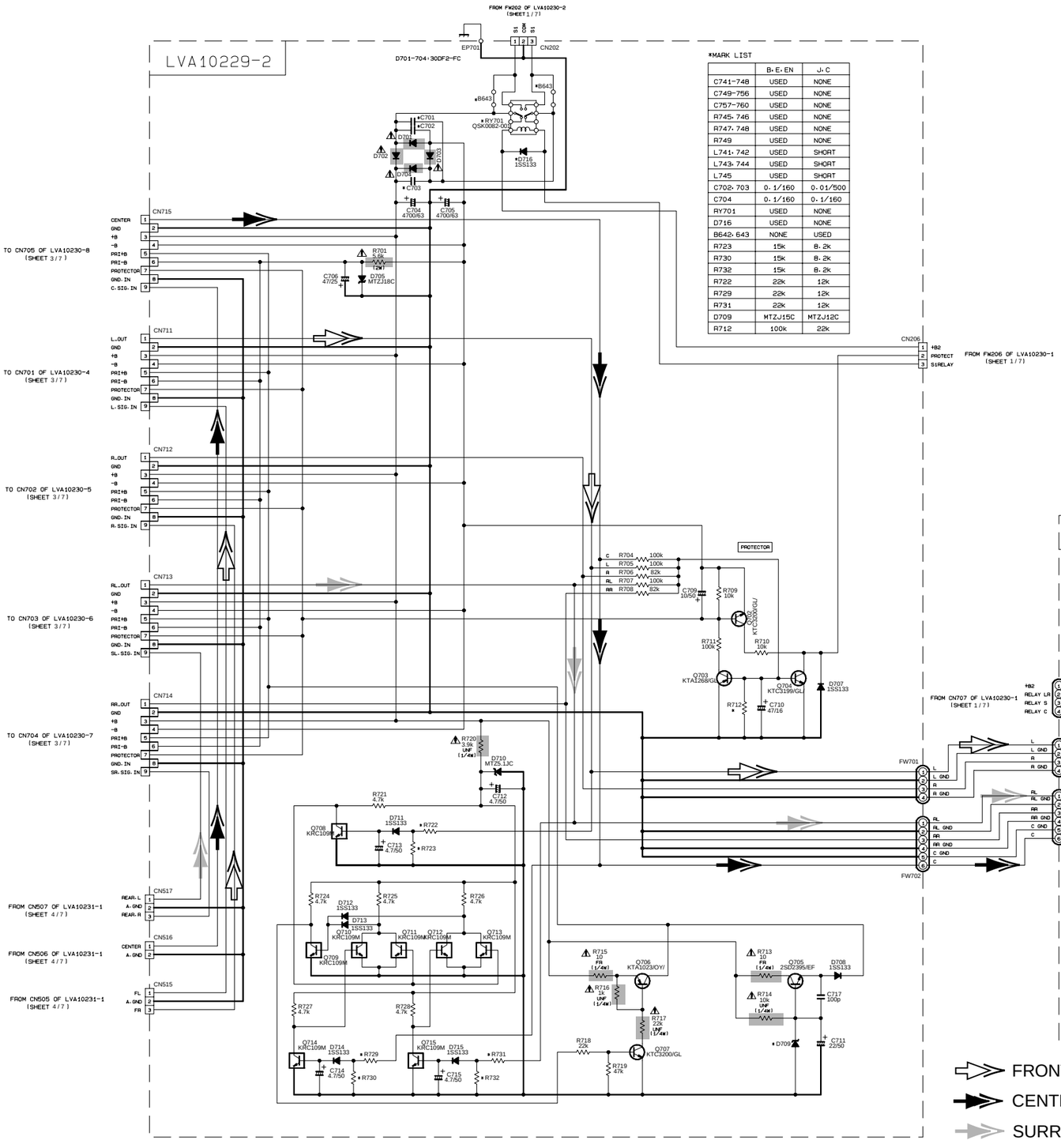
■ Power supply section

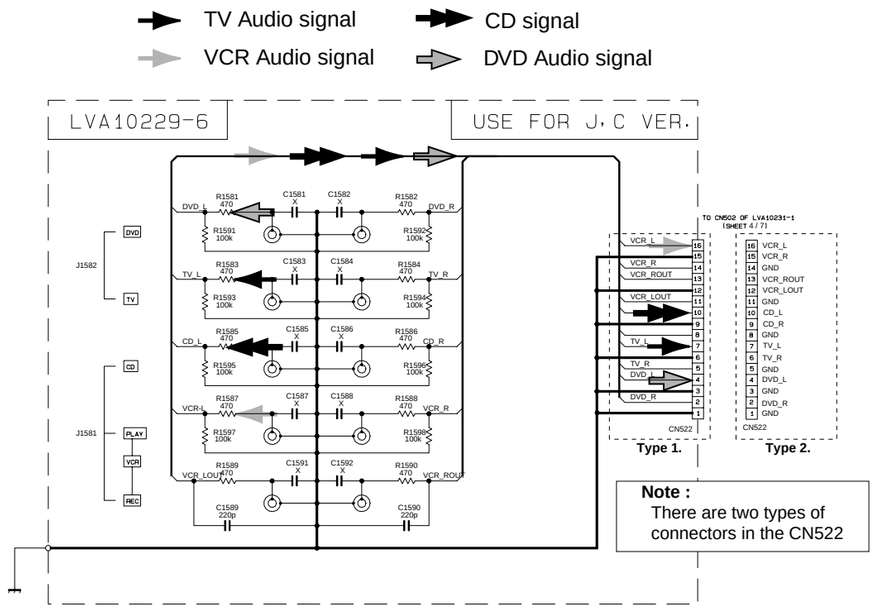


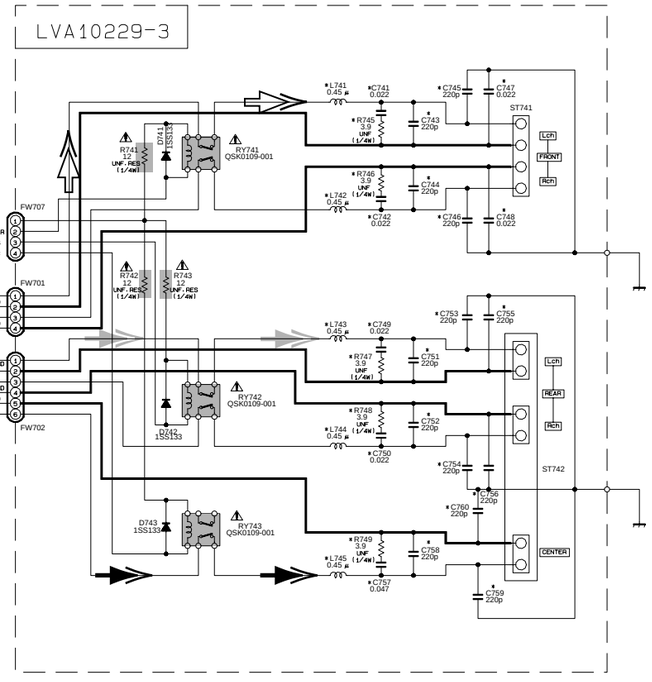
SHEET NUMBER	CIRCUIT DESCRIPTION
1 / 7	POWER SUPPLY
2 / 7	SPEAKER TERMINAL & VIDEO/AUDIO SIGNAL INPUT TERMINAL
3 / 7	AUDIO AMP
4 / 7	AUDIO SIGNAL INPUT TERMINAL
5 / 7	SYSTEM CONTROL & FL DISPLAY
6 / 7	DSP
7 / 7	TUNER

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

■ Speaker terminal & Video / Audio input terminal section





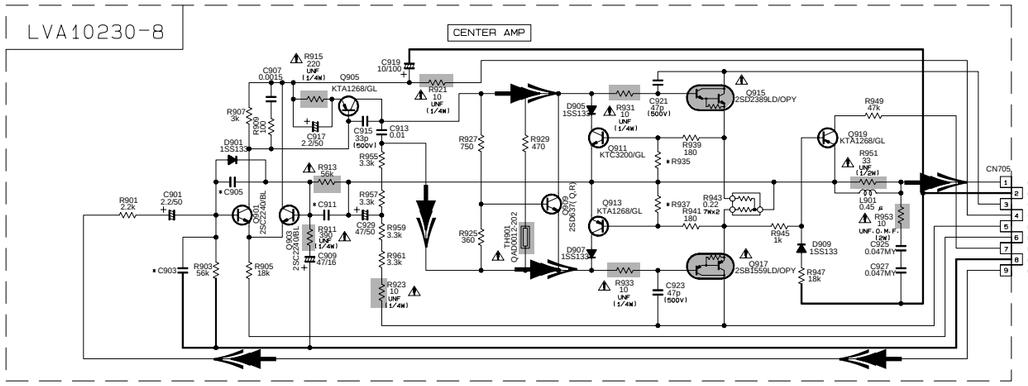


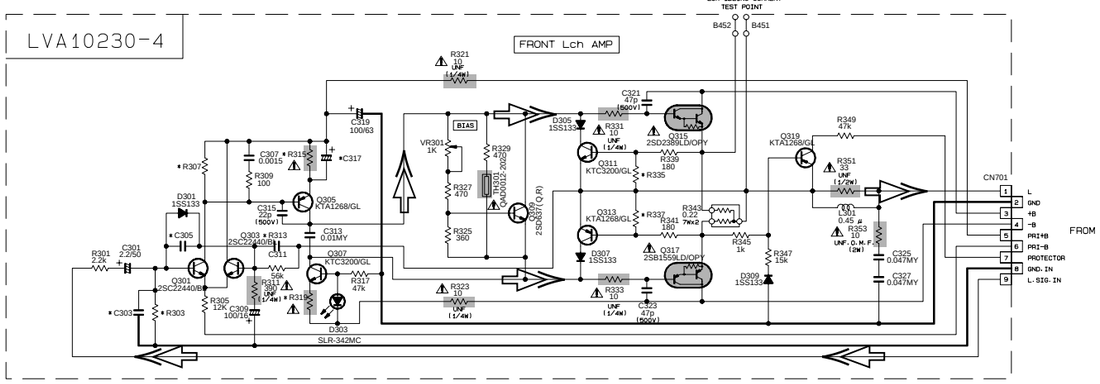
FRONT signal
CENTER signal
SURROUND signal

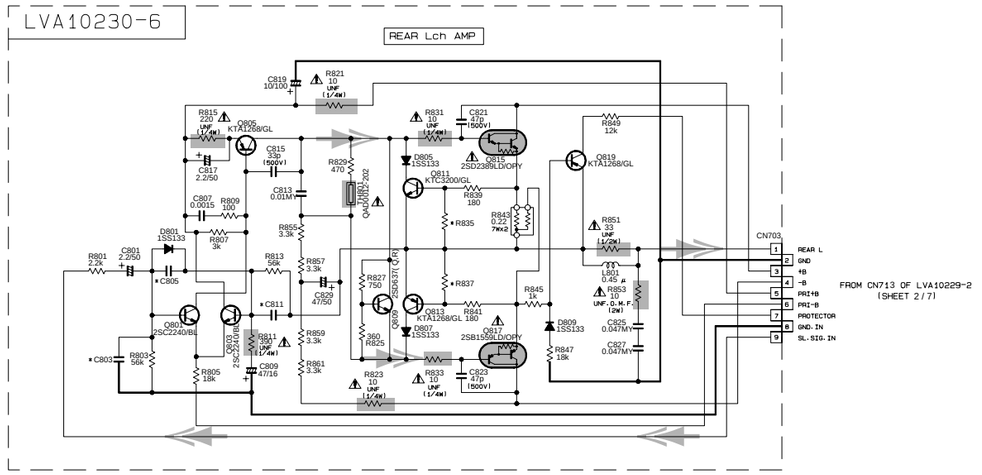
⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified.

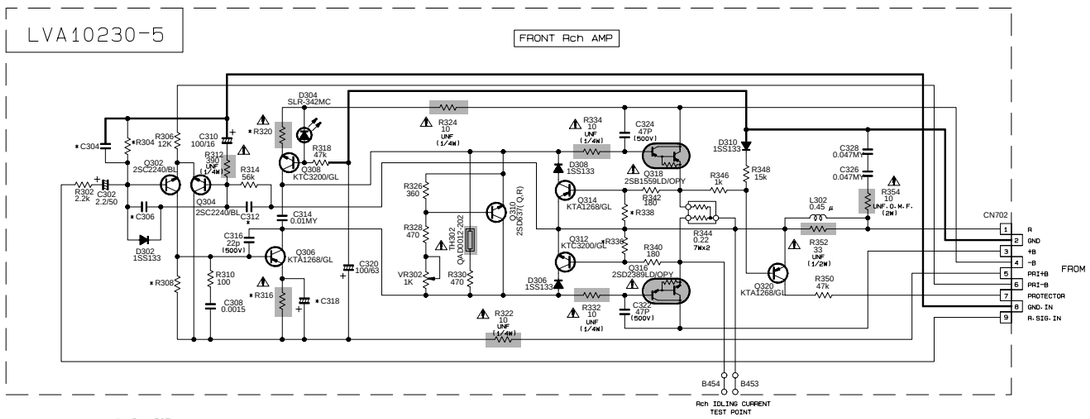
SHEET 2/7

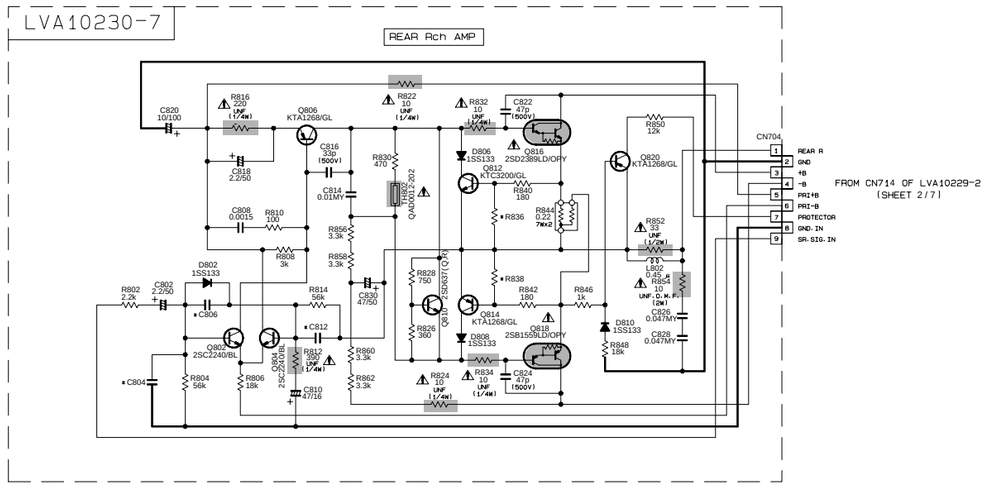
■ Audio amp section











*MARK LIST

	B・E・EN	J・C
R303・304	68k	56k
R307・308	2k	3.3k
R315・316	120 UNF (1/4W)	330 UNF (1/4W)
R319・320	470 UNF (1/4W)	330 UNF (1/4W)
R335・338	82	120
R835・838	100	180
R935	100	180
R937	100	180
C317・318	33/50	2.2/50

	B・E・EN	J・C
C311・312	10p	22p
C811・812	10p	22p
C911	10p	22p
C303・304	68p	270p
C803・804	68p	270p
C903	68p	270p
C305・306	220p	100p
C805・806	220p	100p
C905	220p	100p

FRONT signal
CENTER signal
SURROUND signal

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

■ Audio signal input terminal section

Note : There are two types of connectors in the CN522

TV Audio signal
VCR Audio signal
DVD Audio signal
SUB WOOFER signal
FRONT signal
CENTER signal
SURROUND signal
DSP signal
CD signal
TUNER signal

LVA10231-1 USE FOR J,C VER.

LVA10231-3

LVA10229-4

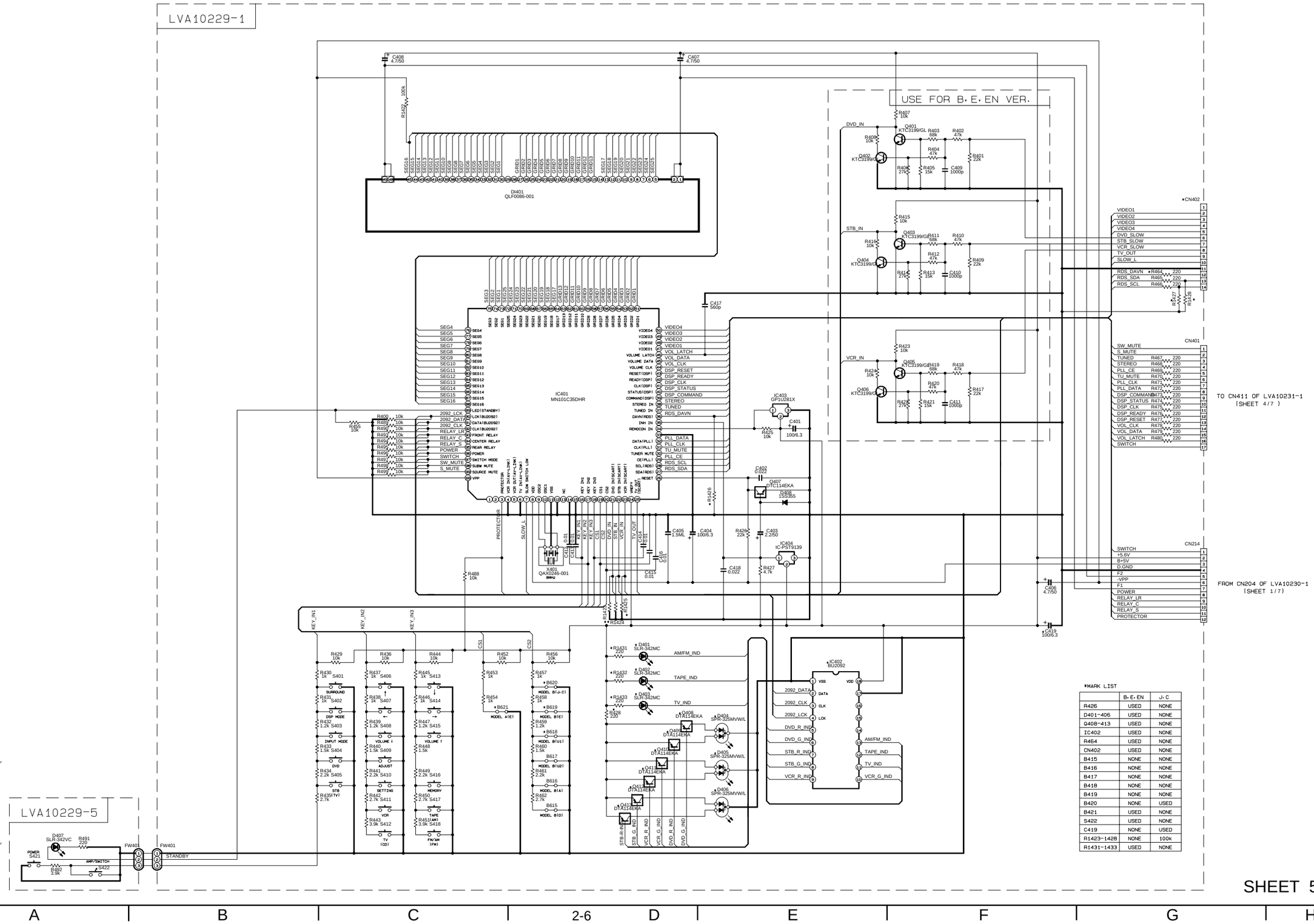
IC501 M61501FP

IC503 BA15218F(1/2)

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

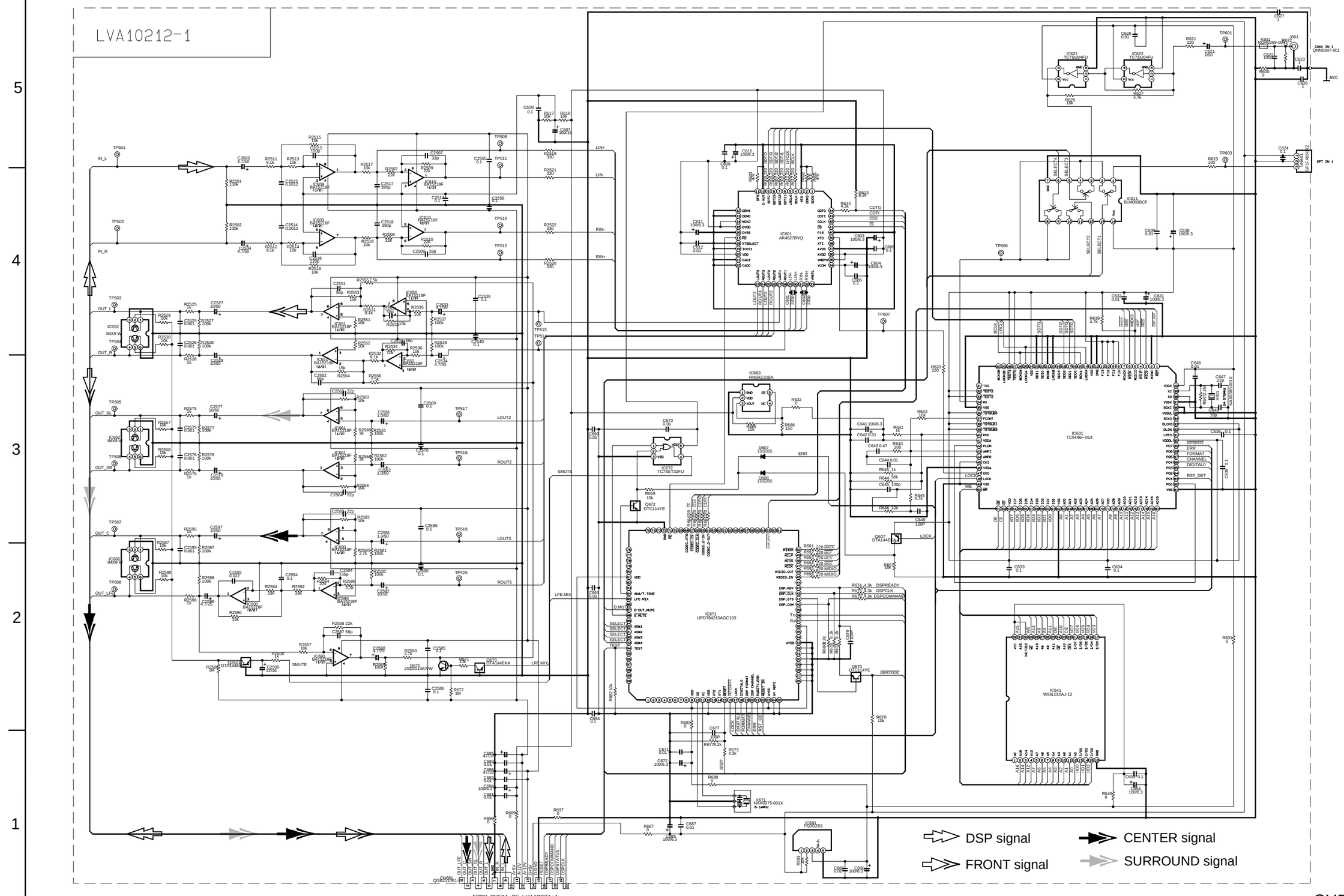
SHEET 4/7

■ System control & FL displaying section

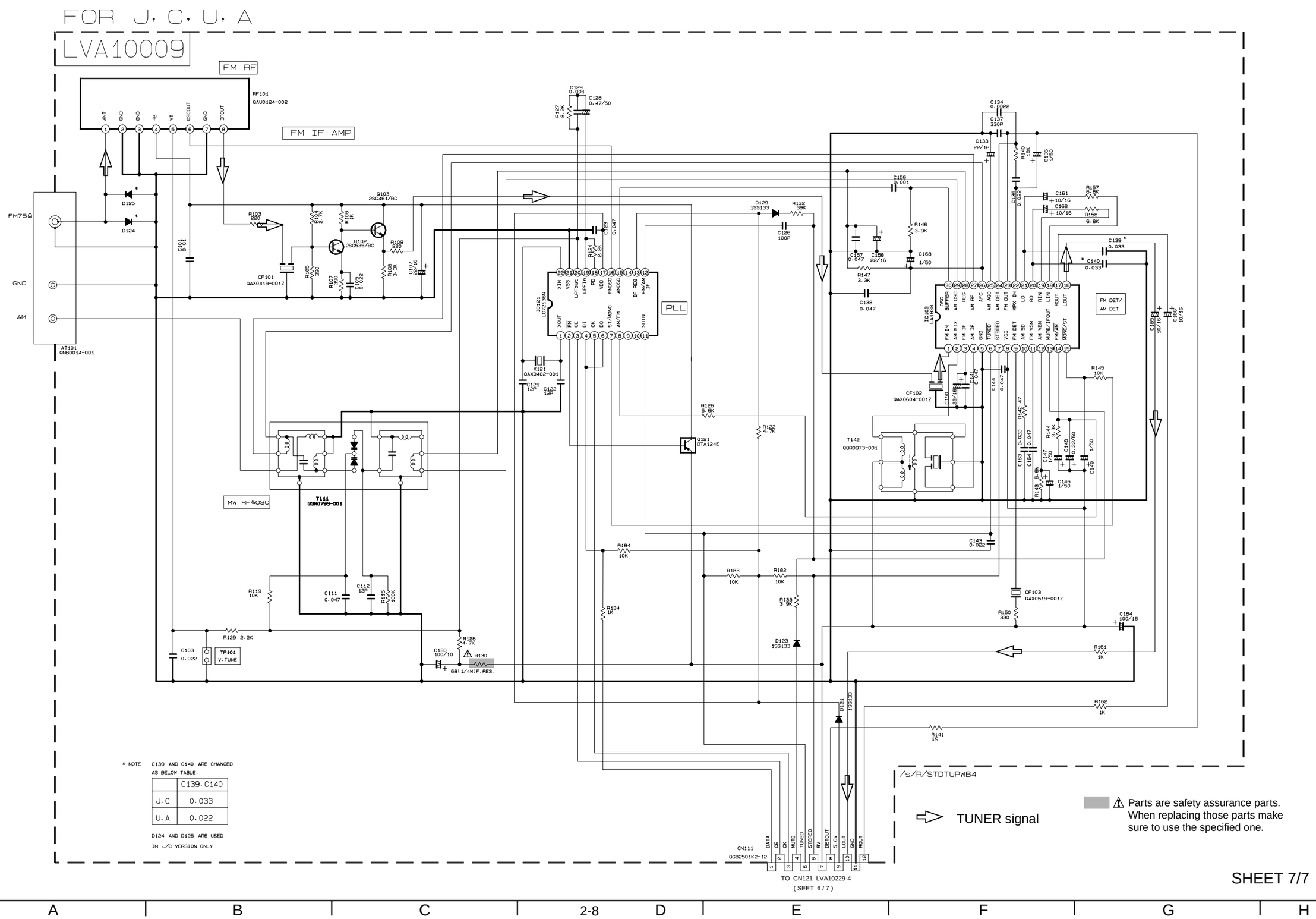


	B.E.EN	J.C
R426	USED	NONE
D401-406	USED	NONE
Q408-413	USED	NONE
IC402	USED	NONE
R464	USED	NONE
CN402	USED	NONE
B415	NONE	NONE
B416	NONE	NONE
B417	NONE	NONE
B418	NONE	NONE
B419	NONE	NONE
B420	NONE	USED
B421	USED	NONE
S422	USED	NONE
C419	NONE	USED
R1423-1428	NONE	100k
R1431-1433	USED	NONE

■ DSP section


LVA10212-1
IC601 AK4527BVQ
IC671 UPD784215AGC103
IC631 TC9446F-014
IC641 W24L010AJ-12
IC621 TC75S04FU
IC622 TC75S04FU
IC611 BU4066BCF
IC683 RN5RZ33BA
IC672 TC7SET32FU
IC681 RH5RZ53
IC609 BA15218F
IC610 BA15218F
IC660 BA15218F
IC661 BA15218F
IC662 BA15218F
IC663 BA15218F
IC664 BA15218F
IC665 BA15218F
IC691 BA15218F
IC692 BA15218F
IC693 BA15218F
IC694 BA15218F
IC652 IMX9-W
IC682 IMX9-W
IC680 IMX9-W
IN_L
IN_R
OUT_L
OUT_R
OUT_SL
OUT_SR
OUT_C
OUT_LFE
LIN+
LIN-
RIN-
RIN+
LOUT2
ROUT2
LOUT3
ROUT3
LFE.MIX
SMUTE
D.MUTE
ERR
LOCK
WE
DSPREADY
DSPCLK
DSPCOMMAND
DSPSTATUS
DSPCLK
DSP signal
FRONT signal
CENTER signal
SURROUND signal
FROM CN601 OF LVA10231-1 (SHEET 4/7)
SHEET 6/7

■ Tuner section



* NOTE C139 AND C140 ARE CHANGED AS BELOW TABLE.

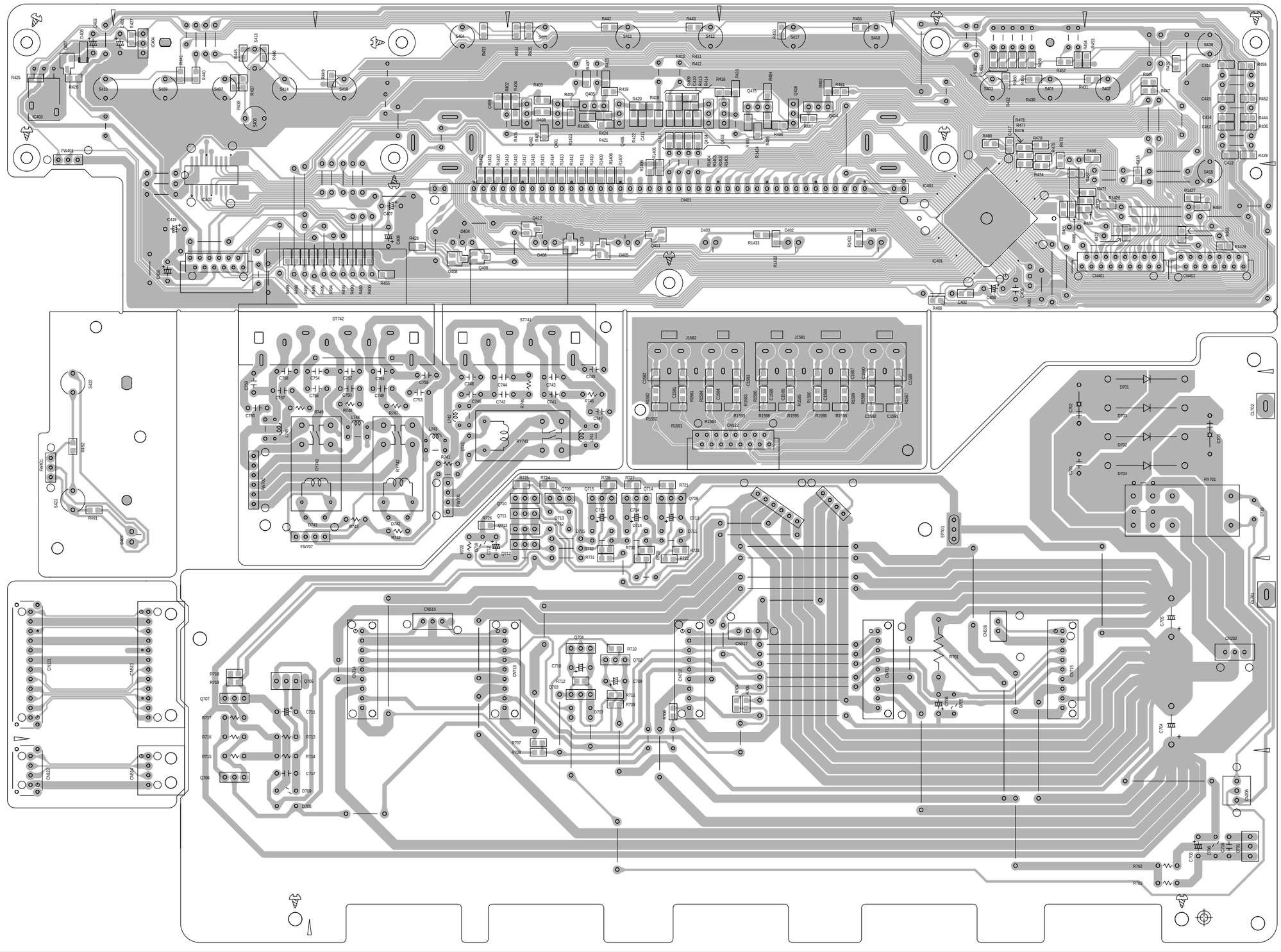
	C139. C140
J. C	0. 033
U. A	0. 022

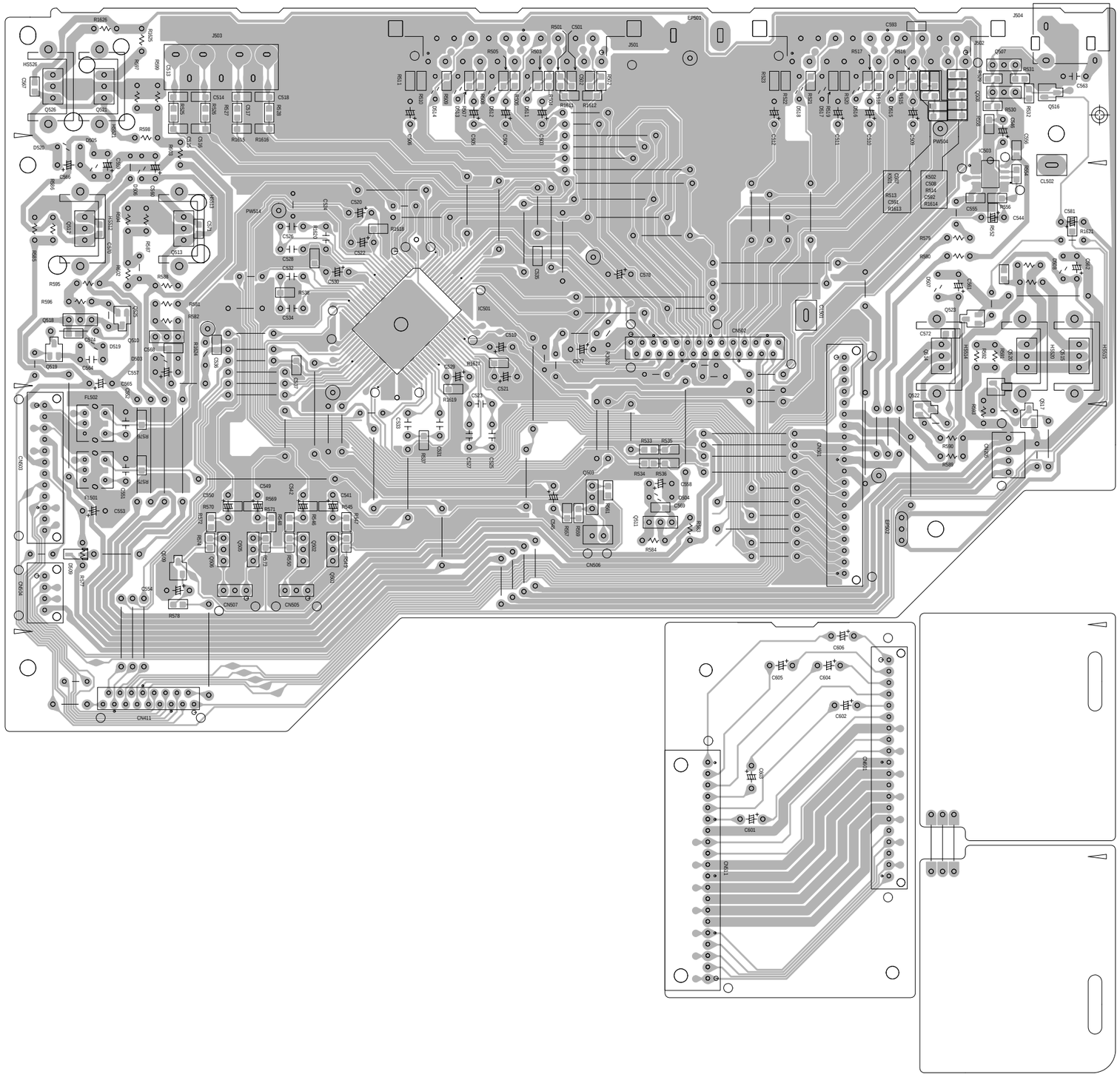
D124 AND D125 ARE USED IN J/C VERSION ONLY

SHEET 7/7

Printed circuit boards

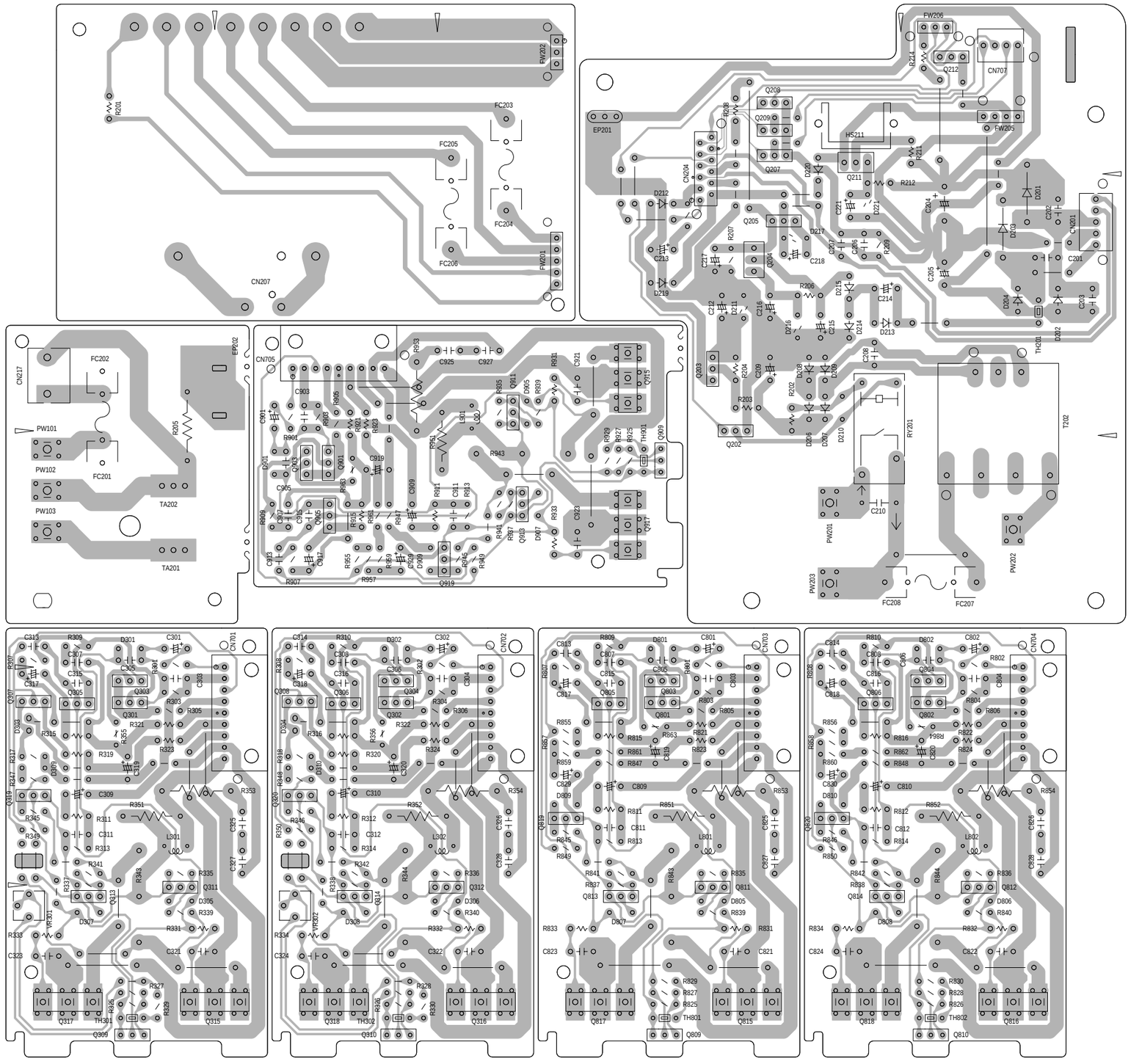
■ Main & System control board





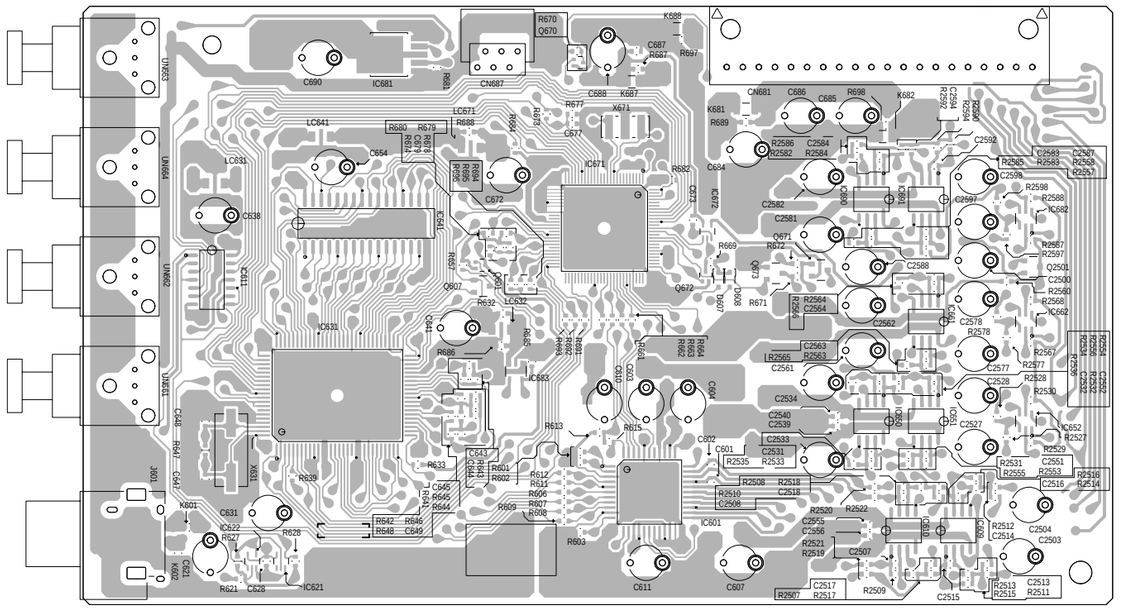
■ Audio signal input board

■ power amp. board

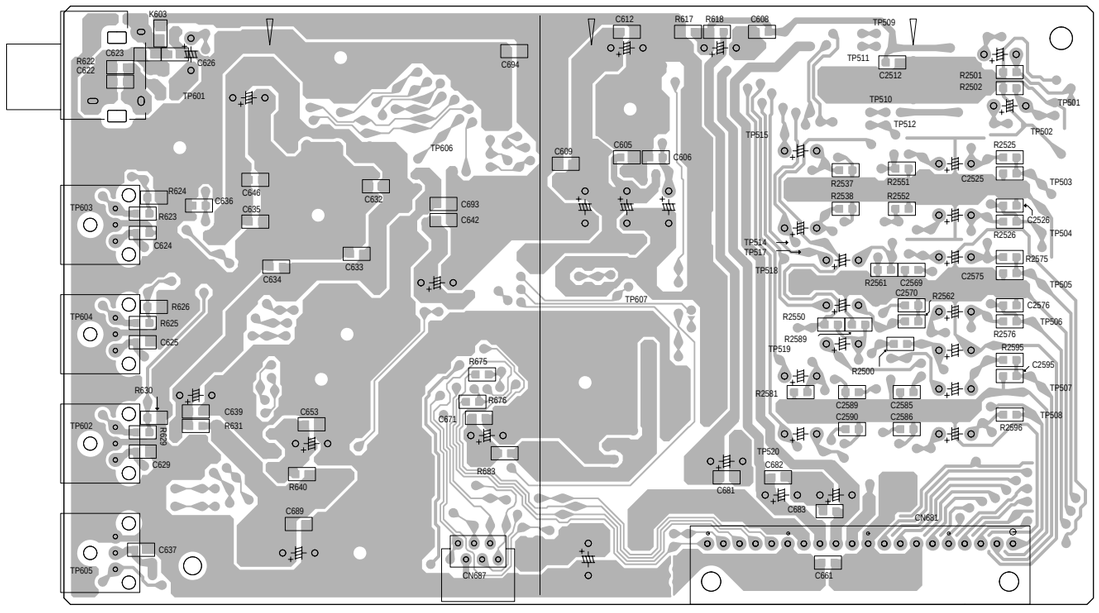


■ DSP board

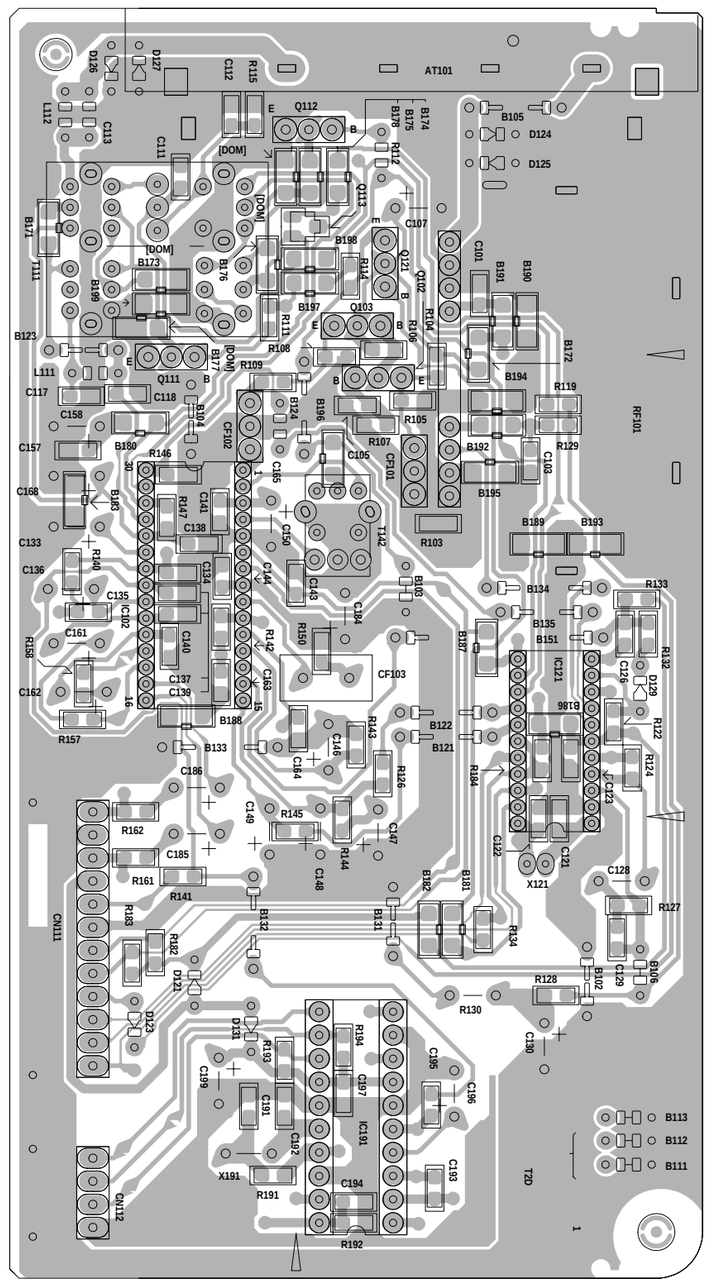
Forward side



Reverse side



■ Tuner board



PARTS LIST

[RX-E100SL]

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

Area suffix

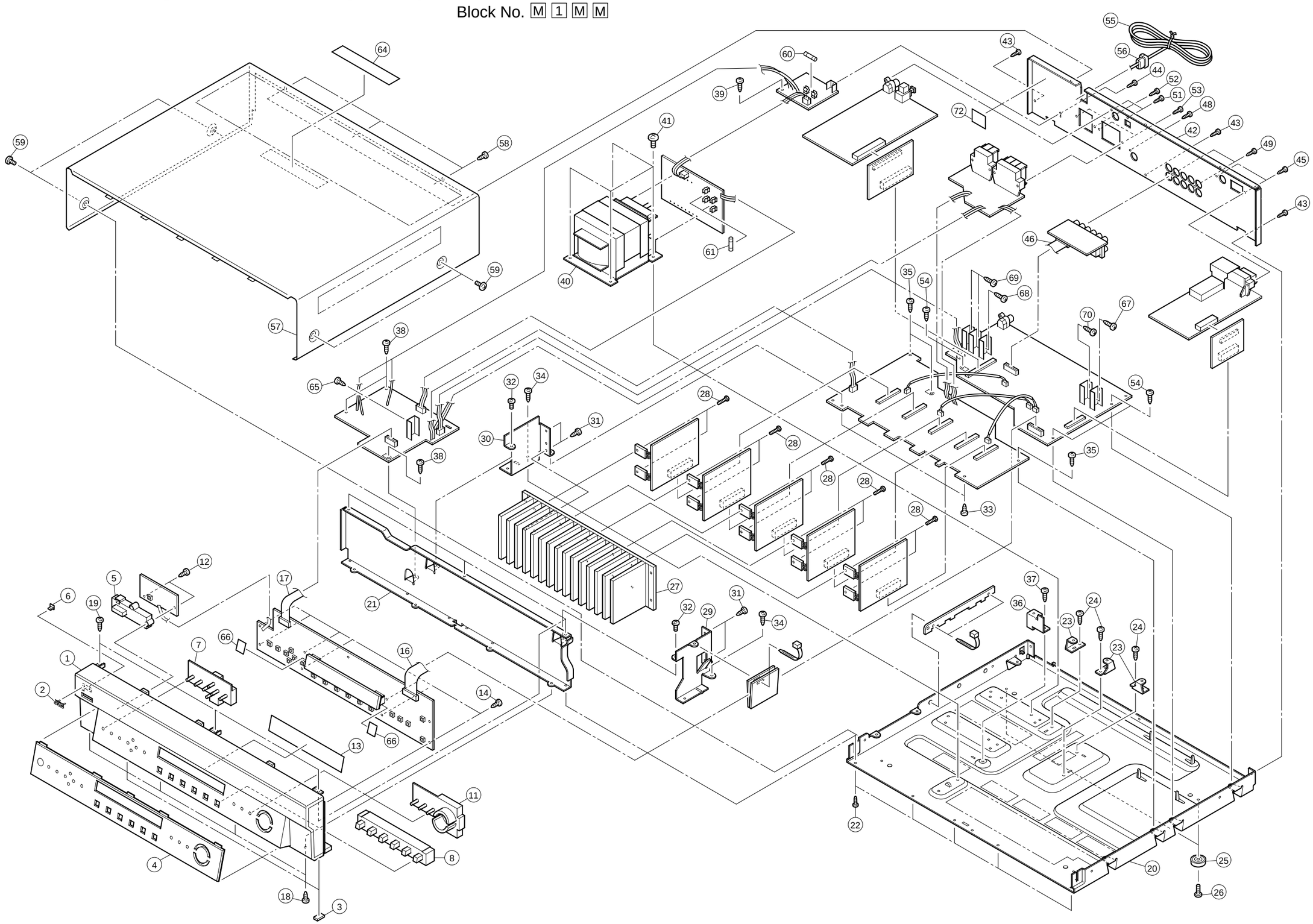
J ---------- U.S.A.
C ---------- Canada

- Contents -

< MEMO >

Exploded view of general assembly and parts list

Block No. M 1 M M



■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10482-002A	FRONT PANEL	1		
	2	VJD5429-002SS	JVC MARK	1		
	3	E75896-003	FELT SPACER	2	FOR FRONT FOOT	
	4	LV20958-001A	LENS	1		
	5	LV20991-002A	POWER BUTTON	1		
	6	LV42096-001A	INDICATOR	1		
	7	LV32517-001A	CONTROL BUTTON	1		
	8	LV20959-002A	SOURCE BUTTON	1		
	11	LV20992-001A	VOLUME BUTTON	1		
	12	QYSBSF2608Z	T.SCREW	2	F.C.B.POWER+F.PANEL	
	13	LV42195-001A	FL SCREEN	1	TO FRONT PANEL	
	14	QYSBSF2608Z	T.SCREW	7	F.C.B.FL+F.PANE	
	16	QUQ412-1738CJ	FFC WIRE	1		
	17	QUQ412-1213CJ	FFC WIRE	1		
	18	QYSBSG3006Z	T.SCREW	4	F.PANEL+C.BASE	
	19	QYSBSG3006Z	T.SCREW	3	F.PANEL+F.BKT	
	20	LV10019-003A	CHASSIS BASE	1		
	21	LV10483-001A	FRONT BRACKET	1		
	22	QYSBSG3006Z	T.SCREW	5	C.BASE+F.BKT	
	23	E68587-223SM	CB BKT	3		
	24	QYSBSG3006Z	T.SCREW	3	CB BKT+C.BASE	
	25	E47227-021	FOOT ASS'Y	2		
	26	QYSBSG3006Z	T.SCREW	2	FOOT ASS'Y+C.BASE	
	27	LV20960-001A	HEAT SINK	1		
	28	E73525-003SS	SCREW	10	TR	
	29	LV32433-001A	H.S BRACKET(R)	1		
	30	LV32434-001A	H.S BRACKET(L)	1		
	31	QYSBSG3008Z	T.SCREW	4	H.SINK BKT+H.SINK	
	32	QYSBSG3006Z	T.SCREW	2	H.SINK BKT+F.BKT	
	33	QYSBSG3006Z	T.SCREW	2	AMP M.C.B+H.SINK BKT	
	34	QYSBSG3006Z	T.SCREW	2	H.SINK BKT+C.BASE	
	35	QYSBSG3006Z	T.SCREW	3	A.M.C.B+C.B.&CB BKT	
	36	LV42098-001A	C.B BKT	1		
	37	QYSBSG3006Z	T.SCREW	1	C.B.BKT+C.BASE	
	38	QYSBSG3006Z	T.SCREW	3	T.C.B+C.BASE&F.BKT	
	39	QYSBSG3006Z	T.SCREW	1	P.CORD C.B+C.BASE	
⚠	40	QQT0327-001	POWER TRANSF	1	T201	
	41	QYSDSTL4008Z	SPECIAL SCREW	4	P.TRANS	
	42	LV20961-008A	REAR PANEL	1		C
		LV20961-007A	REAR PANEL	1		J
	43	QYSBSGY3008M	SPECIAL SCREW	3	R.PANEL+C.BASE	
	44	QYSBSGY3008M	SPECIAL SCREW	1	R.PANEL+ud---	
	45	QYSBSGY3008M	SPECIAL SCREW	2	TUNER	
	46	QUQ412-1607CJ	FFC WIRE	1		
	48	QYSBSGY3008M	SPECIAL SCREW	1	SUB WOOFER	
	49	QYSBSGY3008M	SPECIAL SCREW	2	PIN JACK	
	51	QYSBSGY3008M	SPECIAL SCREW	2	DIGITAL	
	52	QYSBSGY3008M	SPECIAL SCREW	2	F.SPK TERM.+R.PANEL	

■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	53	QYSBSGY3008M	SPECIAL SCREW	2	R.SPK TERM.+R.PANEL	
	54	QYSBSG3006Z	T.SCREW	3	INPUT M.C.B+C.BASE	
⚠	55	QMPD220-200-JD	POWER CORD	1		
⚠	56	QZW0033-001	STRAIN RELIEF	1		
	57	LV20962-001A/S/	TOP COVER	1		
	58	QYSBSGY3008M	SPECIAL SCREW	3		
	59	E406308-004	SPECIAL SCREW	4		
⚠	60	QMF51U1-5R0-J8	FUSE	1	F201	
⚠	61	QMF51U1-2R0-J8	FUSE	2	F202 F203	
	64	E409394-001	CAUTION LABEL	1		J
		E409396-002	CAUTION LABEL	1		C
	65	QYSBSG3008E	T.SCREW	1		
	66	LV30225-0C1A	FELT SPACER	2	FS400 FS401	
	67	QYSBSG3008E	T.SCREW	1		
	68	QYSBSG3008E	T.SCREW	1		
	69	QYSBSG3008E	T.SCREW	2		
	70	QYSBSG3008E	T.SCREW	1		
	72	LV42388-001A	FUSE CAUTION	1	STICK ON REAR INSIDE	

■ **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	QETN0JM-228Z	E CAPACITOR	2200MF 20% 6.3V	
	C 214	QETN1HM-227Z	E CAPACITOR	220MF 20% 50V	
	C 215	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C 216	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 217	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 218	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 221	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 301	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 302	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 303	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 304	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 305	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V	
	C 306	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V	
	C 307	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 308	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 309	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 310	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 311	QCS31HJ-220Z	C CAPACITOR	22PF 5% 50V	
	C 312	QCS31HJ-220Z	C CAPACITOR	22PF 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	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 318	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	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 801	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 802	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 803	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 804	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 805	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V	
	C 806	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V	
	C 807	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 808	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 809	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 810	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 811	QCS31HJ-220Z	C CAPACITOR	22PF 5% 50V	
	C 812	QCS31HJ-220Z	C CAPACITOR	22PF 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	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 818	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 819	QETN2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 820	QETN2AM-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	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 903	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 905	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V	
	C 907	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 909	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 911	QCS31HJ-220Z	C CAPACITOR	22PF 5% 50V	
	C 913	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 915	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C 917	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 919	QETN2AM-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	QGD2501C1-05Z	SOCKET		
	CN204	QGF1205C1-12	CONNECTOR		
	CN207	WJK0037-001A	E-SI C WIRE C-B		
	CN217	QGA7901C1-02	CONNECTOR		
	CN701	QGB2510K1-09	CONNECTOR		
	CN702	QGB2510K1-09	CONNECTOR		
	CN703	QGB2510K1-09	CONNECTOR		
	CN704	QGB2510K1-09	CONNECTOR		
	CN705	QGB2510K1-09	CONNECTOR		
	CN707	QGD2501C1-04Z	SOCKET		
⚠	D 201	10E2-FD	DIODE		
⚠	D 202	1SR35-400A-T5	DIODE		
⚠	D 203	10E2-FD	DIODE		
⚠	D 204	1SR35-400A-T5	DIODE		
⚠	D 206	1SR35-400A-T5	DIODE		
⚠	D 207	1SR35-400A-T5	DIODE		
⚠	D 208	1SR35-400A-T5	DIODE		
⚠	D 209	1SR35-400A-T5	DIODE		
	D 210	1SS133-T2	SI DIODE		
	D 211	MTZJ6.2C-T2	Z DIODE		
	D 212	1SR35-400A-T5	DIODE		
⚠	D 213	1SR35-400A-T5	DIODE		
⚠	D 214	1SR35-400A-T5	DIODE		
⚠	D 215	1SR35-400A-T5	DIODE		
	D 216	MTZJ27C-T2	Z DIODE		
	D 217	MTZJ6.2C-T2	Z DIODE		
	D 219	1SR35-400A-T5	DIODE		
	D 220	1SR35-400A-T5	DIODE		
	D 221	MTZJ6.2C-T2	Z DIODE		
	D 301	1SS133-T2	SI DIODE		
	D 302	1SS133-T2	SI DIODE		
	D 303	SLR-342MC-T	LED		
	D 304	SLR-342MC-T	LED		
	D 305	1SS133-T2	SI DIODE		
	D 306	1SS133-T2	SI DIODE		

■ **Electrical parts list (Power amp board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	D 307	1SS133-T2	SI DIODE		
	D 308	1SS133-T2	SI DIODE		
	D 309	1SS133-T2	SI DIODE		
	D 310	1SS133-T2	SI DIODE		
	D 801	1SS133-T2	SI DIODE		
	D 802	1SS133-T2	SI DIODE		
	D 805	1SS133-T2	SI DIODE		
	D 806	1SS133-T2	SI DIODE		
	D 807	1SS133-T2	SI DIODE		
	D 808	1SS133-T2	SI DIODE		
	D 809	1SS133-T2	SI DIODE		
	D 810	1SS133-T2	SI DIODE		
	D 901	1SS133-T2	SI DIODE		
	D 905	1SS133-T2	SI DIODE		
	D 907	1SS133-T2	SI DIODE		
	D 909	1SS133-T2	SI DIODE		
	EP201	QNZ0136-001Z	EARTH PLATE		
	EP202	E409182-001SM	GRAND TERMINAL		
	FC201	QNG0020-001Z	FUSE CLIP	(F201)	
	FC202	QNG0020-001Z	FUSE CLIP	(F201)	
	FC203	QNG0020-001Z	FUSE CLIP	(F202)	
	FC204	QNG0020-001Z	FUSE CLIP	(F202)	
	FC205	QNG0020-001Z	FUSE CLIP	(F203)	
	FC206	QNG0020-001Z	FUSE CLIP	(F203)	
	FW201	QUM135-22DGZ4	PARA RIBON WIRE		
	FW202	QJK017-031301	SIN CR C-B WIR		
	FW205	QUM134-22DGZ4	PARA RIBON WIRE		
	FW206	QUM133-08DGZ4	PARA RIBON WIRE		
	HS211	E70306-001	HEAT SINK		
	L 301	QQLZ005-R45	INDUCTOR		
	L 302	QQLZ005-R45	INDUCTOR		
	L 801	QQLZ005-R45	INDUCTOR		
	L 802	QQLZ005-R45	INDUCTOR		
	L 901	QQLZ005-R45	INDUCTOR		
	Q 202	KRC105M-T	D TRANSISTOR		
	O 203	KTC3203/OY/-T	TRANSISTOR		
⚠	O 204	KTA1046/Y/	TRANSISTOR		
	O 205	KTC3200/GL/-T	TRANSISTOR		
	Q 207	KRC105M-T	D TRANSISTOR		
	O 208	KRC105M-T	D TRANSISTOR		
	O 209	KRC105M-T	D TRANSISTOR		
⚠	O 211	2SD2395/EF/	TRANSISTOR		
	O 301	2SC2240/L/-T	TRANSISTOR		
	Q 302	2SC2240/L/-T	TRANSISTOR		
	O 303	2SC2240/L/-T	TRANSISTOR		
	Q 304	2SC2240/L/-T	TRANSISTOR		
	O 305	KTA1268/GL/-T	TRANSISTOR		
	O 306	KTA1268/GL/-T	TRANSISTOR		
	Q 307	KTC3200/GL/-T	TRANSISTOR		
	O 308	KTC3200/GL/-T	TRANSISTOR		
	O 309	2SD637/QR/	TRANSISTOR		
	O 310	2SD637/QR/	TRANSISTOR		
	O 311	KTC3200/GL/-T	TRANSISTOR		
	O 312	KTC3200/GL/-T	TRANSISTOR		
	O 313	KTA1268/GL/-T	TRANSISTOR		
	O 314	KTA1268/GL/-T	TRANSISTOR		
⚠	O 315	2SD2389/OPY/-F6	TRANSISTOR		
⚠	O 316	2SD2389/OPY/-F6	TRANSISTOR		
⚠	O 317	2SB1559/OPY/-F6	TRANSISTOR		
⚠	O 318	2SB1559/OPY/-F6	TRANSISTOR		
	O 319	KTA1268/GL/-T	TRANSISTOR		
	O 320	KTA1268/GL/-T	TRANSISTOR		
	O 801	2SC2240/L/-T	TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	O 802	2SC2240/L/-T	TRANSISTOR		
	O 803	2SC2240/L/-T	TRANSISTOR		
	O 804	2SC2240/L/-T	TRANSISTOR		
	O 805	KTA1268/GL/-T	TRANSISTOR		
	Q 806	KTA1268/GL/-T	TRANSISTOR		
	O 809	2SD637/QR/	TRANSISTOR		
	O 810	2SD637/QR/	TRANSISTOR		
	O 811	KTC3200/GL/-T	TRANSISTOR		
	O 812	KTC3200/GL/-T	TRANSISTOR		
	Q 813	KTA1268/GL/-T	TRANSISTOR		
	O 814	KTA1268/GL/-T	TRANSISTOR		
⚠	O 815	2SD2389/OPY/-F6	TRANSISTOR		
⚠	O 816	2SD2389/OPY/-F6	TRANSISTOR		
⚠	O 817	2SB1559/OPY/-F6	TRANSISTOR		
⚠	O 818	2SB1559/OPY/-F6	TRANSISTOR		
	O 819	KTA1268/GL/-T	TRANSISTOR		
	O 820	KTA1268/GL/-T	TRANSISTOR		
	O 901	2SC2240/L/-T	TRANSISTOR		
	O 903	2SC2240/L/-T	TRANSISTOR		
	O 905	KTA1268/GL/-T	TRANSISTOR		
	O 909	2SD637/QR/	TRANSISTOR		
	O 911	KTC3200/GL/-T	TRANSISTOR		
	O 913	KTA1268/GL/-T	TRANSISTOR		
⚠	O 915	2SD2389/OPY/-F6	TRANSISTOR		
⚠	O 917	2SB1559/OPY/-F6	TRANSISTOR		
	O 919	KTA1268/GL/-T	TRANSISTOR		
⚠	R 201	QRJ146J-5R6X	UNF C RESISTOR	5.6 5% 1/4W	
⚠	R 202	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 203	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 204	QRJ146J-821X	UNF C RESISTOR	820 5% 1/4W	
⚠	R 205	QRZ9044-335	COMP RESISTOR	3.3M 1/0W	
⚠	R 206	QRJ146J-332X	UNF C RESISTOR	3.3K 5% 1/4W	
	R 207	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
⚠	R 208	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 209	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R 211	QRZ9005-120X	F RESISTOR	12 1/0W	
⚠	R 212	QRJ146J-682X	UNF C RESISTOR	6.8K 5% 1/4W	
	R 213	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 301	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 302	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 303	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 304	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 305	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 306	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 307	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 308	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 309	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 310	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
⚠	R 311	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
⚠	R 312	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
	R 313	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 314	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 315	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
⚠	R 316	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	R 317	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 318	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
⚠	R 319	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
⚠	R 320	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
⚠	R 321	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 322	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 323	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 324	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 325	QRE141J-361Y	C RESISTOR	360 5% 1/4W	

■ **Electrical parts list (Power amp board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 326	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 327	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 328	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 329	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 330	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
⚠	R 331	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 332	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 333	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 334	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 335	QRE141J-121Y	C RESISTOR	120 5% 1/4W	
	R 336	QRE141J-121Y	C RESISTOR	120 5% 1/4W	
	R 337	QRE141J-121Y	C RESISTOR	120 5% 1/4W	
	R 338	QRE141J-121Y	C RESISTOR	120 5% 1/4W	
	R 339	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 340	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 341	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 342	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 343	QRZ0218-R22	EMIT RESISTOR	1/2W	
	R 344	QRZ0218-R22	EMIT RESISTOR	1/2W	
	R 345	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 346	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 347	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 348	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 349	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 350	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
⚠	R 351	QRJ125J-330	UNF C RESISTOR	33 5% 1/2W	
⚠	R 352	QRJ125J-330	UNF C RESISTOR	33 5% 1/2W	
⚠	R 353	QRL022J-100	UNF OMF RESISTOR	10 5% 1/2W	
⚠	R 354	QRL022J-100	UNF OMF RESISTOR	10 5% 1/2W	
	R 801	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 802	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 803	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 804	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 805	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 806	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 807	QRE141J-302Y	C RESISTOR	3.0K 5% 1/4W	
	R 808	QRE141J-302Y	C RESISTOR	3.0K 5% 1/4W	
	R 809	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 810	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
⚠	R 811	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
⚠	R 812	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
	R 813	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 814	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 815	QRJ146J-221X	UNF C RESISTOR	220 5% 1/4W	
⚠	R 816	QRJ146J-221X	UNF C RESISTOR	220 5% 1/4W	
⚠	R 821	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 822	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 823	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 824	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 825	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 826	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 827	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 828	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 829	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 830	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
⚠	R 831	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 832	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 833	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
⚠	R 834	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 835	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 836	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 837	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 838	QRE141J-181Y	C RESISTOR	180 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 839	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 840	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 841	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 842	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 843	QRZ0218-R22	EMIT RESISTOR	1/2W	
	R 844	QRZ0218-R22	EMIT RESISTOR	1/2W	
	R 845	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 846	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 847	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 848	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 849	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 850	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
⚠	R 851	QRJ125J-330	UNF C RESISTOR	33 5% 1/2W	
⚠	R 852	QRJ125J-330	UNF C RESISTOR	33 5% 1/2W	
⚠	R 853	QRL022J-100	UNF OMF RESISTOR	10 5% 1/2W	
⚠	R 854	QRL022J-100	UNF OMF RESISTOR	10 5% 1/2W	
	R 855	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 856	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 857	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 858	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 859	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 860	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 861	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 862	QRE141J-332Y	C RESISTOR	3.3K 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-183Y	C RESISTOR	18K 5% 1/4W	
	R 907	QRE141J-302Y	C RESISTOR	3.0K 5% 1/4W	
	R 909	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
⚠	R 911	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
⚠	R 913	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 915	QRJ146J-221X	UNF C RESISTOR	220 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-751Y	C RESISTOR	750 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	EMIT 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 C RESISTOR	33 5% 1/2W	
⚠	R 953	QRL022J-100	UNF OMF RESISTOR	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	
⚠	RY201	QSK0055-001	RELAY		
⚠	T 202	QQT0317-001	POWER TRANSF		
	TA201	QNZ0079-001Z	TAB		
	TA202	QNZ0079-001Z	TAB		
⚠	TH201	QAD0095-4R7Z	POSISTOR		
⚠	TH301	QAD0012-202	THERMISTOR		
⚠	TH302	QAD0012-202	THERMISTOR		
⚠	TH801	QAD0012-202	THERMISTOR		
⚠	TH802	QAD0012-202	THERMISTOR		
⚠	TH901	QAD0012-202	THERMISTOR		
	VR301	QVP0008-102Z	SEMI V RESISTOR		
	VR302	QVP0008-102Z	SEMI V RESISTOR		

■ **Electrical parts list (Main & System control board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	BK401	LV32554-001A	FL HOLDER(L)		
	BK402	LV32555-001A	FL HOLDER(R)		
	C 401	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 402	NCB31CK-223X	C CAPACITOR		
	C 403	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 404	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 405	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 406	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 407	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 408	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 412	NCB31HK-103X	C CAPACITOR		
	C 413	NCB31HK-103X	C CAPACITOR		
	C 414	NCB31HK-103X	C CAPACITOR		
	C 415	NCB31HK-103X	C CAPACITOR		
	C 416	NCB31HK-103X	C CAPACITOR		
	C 417	NCB31HK-561X	C CAPACITOR		
	C 418	NCB31CK-223X	C CAPACITOR		
	C 419	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 701	QFZ9076-104Z	MM CAPACITOR	.10MF	
	C 702	QCE22HP-103	C CAPACITOR	.010MF +100:-0%	
	C 703	QCE22HP-103	C CAPACITOR	.010MF +100:-0%	
	C 704	QTE1J45-478	E CAPACITER		
	C 705	QTE1J45-478	E CAPACITER		
	C 706	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 709	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 710	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 711	QEKC1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 712	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 713	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 714	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 715	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 717	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V	
	CL701	QZW0038-001	WIRE CLAMP		
	CL702	QZW0038-001	WIRE CLAMP		
	CN121	QGB2501J1-12	CONNECTOR		
	CN202	QGA2501C1-03	3P CONNECTOR		
	CN206	QGD2501C1-03Z	SOCKET		
	CN214	QGF1205F1-12	CONNECTOR		
	CN401	QGF1205F1-17	CONNECTOR		
	CN513	QGB2510K1-12	CONNECTOR		
	CN515	QGA2501C1-03	3P CONNECTOR		
	CN516	QGA2501C1-02	2P CONNECTOR		
	CN517	QGA2501C1-03	3P CONNECTOR		
	CN522	QGF1205F1-16	CONNECTOR		
	CN711	QGB2510J1-09	CONNECTOR		
	CN712	QGB2510J1-09	CONNECTOR		
	CN713	QGB2510J1-09	CONNECTOR		
	CN714	QGB2510J1-09	CONNECTOR		
	CN715	QGB2510J1-09	CONNECTOR		
	D 407	SLR-342VC-T	LED		
	D 408	1SS355-X	DIODE		
⚠	D 701	30DF2-FC	DIODE		
⚠	D 702	30DF2-FC	DIODE		
⚠	D 703	30DF2-FC	DIODE		
⚠	D 704	30DF2-FC	DIODE		
	D 705	MTZJ18C-T2	Z DIODE		
	D 707	1SS133-T2	SI DIODE		
	D 708	1SS133-T2	SI DIODE		
	D 709	MTZJ12C-T2	Z DIODE		
	D 710	MTZJ5.1C-T2	Z DIODE		
	D 711	1SS133-T2	SI DIODE		
	D 712	1SS133-T2	SI DIODE		
	D 713	1SS133-T2	SI DIODE		

⚠	Item	Parts number	Parts name	Remarks	Area
	D 714	1SS133-T2	SI DIODE		
	D 715	1SS133-T2	SI DIODE		
	D 741	1SS133-T2	SI DIODE		
	D 742	1SS133-T2	SI DIODE		
	D 743	1SS133-T2	SI DIODE		
	DI401	QLF0086-001	FL TUBE		
	EP701	QNZ0136-001Z	EARTH PLATE		
	FW401	QUM133-20Z4Z4	PARA RIBON WIRE		
	FW701	QUM134-27Z4Z4	PARA RIBON WIRE		
	FW702	QUM136-24Z4Z4	PARA RIBON WIRE		
	FW707	QUM134-22DGZ4	PARA RIBON WIRE		
	IC401	MN101C35DHR	IC		
	IC403	GP1U281X	IC		
	IC404	IC-PST9139-T	IC		
	J1581	QNN0058-001	PIN JACK		
	J1582	QNN0056-001	PIN JACK		
	O 407	DTC114EKA-X	TRANSISTOR		
	O 702	KTC3200/GL/-T	TRANSISTOR		
	O 703	KTA1268/GL/-T	TRANSISTOR		
	O 704	KTC3199/GL/-T	TRANSISTOR		
	O 705	2SD2395/EF/	TRANSISTOR		
	O 706	KTA1023/OY/-T	TRANSISTOR		
	O 707	KTC3200/GL/-T	TRANSISTOR		
	O 708	KRC109M-T	D TRANSISTOR		
	O 709	KRC109M-T	D TRANSISTOR		
	O 710	KRC109M-T	D TRANSISTOR		
	O 711	KRC109M-T	D TRANSISTOR		
	O 712	KRC109M-T	D TRANSISTOR		
	O 713	KRC109M-T	D TRANSISTOR		
	Q 714	KRC109M-T	D TRANSISTOR		
	O 715	KRC109M-T	D TRANSISTOR		
	R 400	NRSA63J-103X	MG RESISTOR		
	R 425	NRSA63J-103X	MG RESISTOR		
	R 426	NRSA63J-223X	MG RESISTOR		
	R 427	NRSA63J-472X	MG RESISTOR		
	R 429	NRSA63J-103X	MG RESISTOR		
	R 430	NRSA63J-102X	MG RESISTOR		
	R 431	NRSA63J-102X	MG RESISTOR		
	R 432	NRSA63J-122X	MG RESISTOR		
	R 433	NRSA63J-152X	MG RESISTOR		
	R 434	NRSA63J-222X	MG RESISTOR		
	R 435	NRSA63J-272X	MG RESISTOR		
	R 436	NRSA63J-103X	MG RESISTOR		
	R 437	NRSA63J-102X	MG RESISTOR		
	R 438	NRSA63J-102X	MG RESISTOR		
	R 439	NRSA63J-122X	MG RESISTOR		
	R 440	NRSA63J-152X	MG RESISTOR		
	R 441	NRSA63J-222X	MG RESISTOR		
	R 442	NRSA63J-272X	MG RESISTOR		
	R 443	NRSA63J-392X	MG RESISTOR		
	R 444	NRSA63J-103X	MG RESISTOR		
	R 445	NRSA63J-102X	MG RESISTOR		
	R 446	NRSA63J-102X	MG RESISTOR		
	R 447	NRSA63J-122X	MG RESISTOR		
	R 448	NRSA63J-152X	MG RESISTOR		
	R 449	NRSA63J-222X	MG RESISTOR		
	R 450	NRSA63J-272X	MG RESISTOR		
	R 451	NRSA63J-392X	MG RESISTOR		
	R 452	NRSA63J-103X	MG RESISTOR		
	R 455	NRSA63J-103X	MG RESISTOR		
	R 456	NRSA63J-103X	MG RESISTOR		
	R 457	NRSA63J-102X	MG RESISTOR		
	R 465	NRSA63J-221X	MG RESISTOR		

■ **Electrical parts list (Main & System control board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 466	NRSA63J-221X	MG RESISTOR		
	R 467	NRSA63J-221X	MG RESISTOR		
	R 468	NRSA63J-221X	MG RESISTOR		
	R 469	NRSA63J-221X	MG RESISTOR		
	R 470	NRSA63J-221X	MG RESISTOR		
	R 471	NRSA63J-221X	MG RESISTOR		
	R 472	NRSA63J-221X	MG RESISTOR		
	R 473	NRSA63J-221X	MG RESISTOR		
	R 474	NRSA63J-221X	MG RESISTOR		
	R 475	NRSA63J-221X	MG RESISTOR		
	R 476	NRSA63J-221X	MG RESISTOR		
	R 477	NRSA63J-221X	MG RESISTOR		
	R 478	NRSA63J-221X	MG RESISTOR		
	R 479	NRSA63J-221X	MG RESISTOR		
	R 480	NRSA63J-221X	MG RESISTOR		
	R 488	NRSA63J-103X	MG RESISTOR		
	R 489	NRSA63J-103X	MG RESISTOR		
	R 490	NRSA63J-103X	MG RESISTOR		
	R 491	NRSA63J-221X	MG RESISTOR		
	R 492	NRSA63J-392X	MG RESISTOR		
	R 493	NRSA63J-103X	MG RESISTOR		
	R 494	NRSA63J-103X	MG RESISTOR		
	R 495	NRSA63J-103X	MG RESISTOR		
	R 496	NRSA63J-103X	MG RESISTOR		
	R 497	NRSA63J-103X	MG RESISTOR		
	R 498	NRSA63J-103X	MG RESISTOR		
	R 499	NRSA63J-103X	MG RESISTOR		
⚠	R 701	QRL022J-562	UNF OMF RESISTOR	5.6K 5% 1/2W	
	R 704	NRSA63J-104X	MG RESISTOR		
	R 705	NRSA63J-104X	MG RESISTOR		
	R 706	NRSA63J-823X	MG RESISTOR		
	R 707	NRSA63J-104X	MG RESISTOR		
	R 708	NRSA63J-823X	MG RESISTOR		
	R 709	NRSA63J-103X	MG RESISTOR		
	R 710	NRSA63J-103X	MG RESISTOR		
	R 711	NRSA63J-104X	MG RESISTOR		
	R 712	NRSA63J-223X	MG RESISTOR		
⚠	R 713	QRZ9005-100X	F RESISTOR	10 1/0W	
⚠	R 714	QRJ146J-103X	UNF C RESISTOR	10K 5% 1/4W	
⚠	R 715	QRZ9005-100X	F RESISTOR	10 1/0W	
⚠	R 716	QRJ146J-102X	UNF C RESISTOR	1.0K 5% 1/4W	
⚠	R 717	QRJ146J-223X	UNF C RESISTOR	22K 5% 1/4W	
	R 718	NRSA63J-103X	MG RESISTOR		
	R 719	NRSA63J-473X	MG RESISTOR		
⚠	R 720	QRJ146J-392X	UNF C RESISTOR	3.9K 5% 1/4W	
	R 721	NRSA63J-472X	MG RESISTOR		
	R 722	NRSA63J-123X	MG RESISTOR		
	R 723	NRSA63J-822X	MG RESISTOR		
	R 724	NRSA63J-472X	MG RESISTOR		
	R 725	NRSA63J-472X	MG RESISTOR		
	R 726	NRSA63J-472X	MG RESISTOR		
	R 727	NRSA63J-472X	MG RESISTOR		
	R 728	NRSA63J-472X	MG RESISTOR		
	R 729	NRSA63J-123X	MG RESISTOR		
	R 730	NRSA63J-822X	MG RESISTOR		
	R 731	NRSA63J-123X	MG RESISTOR		
	R 732	NRSA63J-822X	MG RESISTOR		
⚠	R 741	QRJ146J-120X	UNF C RESISTOR	12 5% 1/4W	
⚠	R 742	QRJ146J-120X	UNF C RESISTOR	12 5% 1/4W	
⚠	R 743	QRJ146J-120X	UNF C RESISTOR	12 5% 1/4W	
⚠	RY741	QSK0109-001	RELAY		
⚠	RY742	QSK0109-001	RELAY		
⚠	RY743	QSK0109-001	RELAY		

⚠	Item	Parts number	Parts name	Remarks	Area
	R1422	NRSA63J-104X	MG RESISTOR		
	R1423	NRSA63J-104X	MG RESISTOR		
	R1424	NRSA63J-104X	MG RESISTOR		
	R1425	NRSA63J-104X	MG RESISTOR		
	R1426	NRSA63J-104X	MG RESISTOR		
	R1427	NRSA63J-104X	MG RESISTOR		
	R1428	NRSA63J-104X	MG RESISTOR		
	R1581	NRSA63J-471X	MG RESISTOR		
	R1582	NRSA63J-471X	MG RESISTOR		
	R1583	NRSA63J-471X	MG RESISTOR		
	R1584	NRSA63J-471X	MG RESISTOR		
	R1585	NRSA63J-471X	MG RESISTOR		
	R1586	NRSA63J-471X	MG RESISTOR		
	R1587	NRSA63J-471X	MG RESISTOR		
	R1588	NRSA63J-471X	MG RESISTOR		
	R1589	NRSA63J-471X	MG RESISTOR		
	R1590	NRSA63J-471X	MG RESISTOR		
	R1591	NRSA63J-104X	MG RESISTOR		
	R1592	NRSA63J-104X	MG RESISTOR		
	R1593	NRSA63J-104X	MG RESISTOR		
	R1594	NRSA63J-104X	MG RESISTOR		
	R1595	NRSA63J-104X	MG RESISTOR		
	R1596	NRSA63J-104X	MG RESISTOR		
	R1597	NRSA63J-104X	MG RESISTOR		
	R1598	NRSA63J-104X	MG RESISTOR		
	S 401	QSW0683-001Z	PUSH SWITCH	SURROUND	
	S 402	QSW0683-001Z	PUSH SWITCH	DSP MODE	
	S 403	QSW0683-001Z	PUSH SWITCH	INPUT MODE	
	S 404	QSW0683-001Z	PUSH SWITCH	DVD	
	S 405	QSW0683-001Z	PUSH SWITCH	TV	
	S 406	QSW0683-001Z	PUSH SWITCH	UP	
	S 407	QSW0683-001Z	PUSH SWITCH	LEFT	
	S 408	QSW0683-001Z	PUSH SWITCH	VOL.DOWN	
	S 409	QSW0683-001Z	PUSH SWITCH	ADJUST	
	S 410	QSW0683-001Z	PUSH SWITCH	SETTING	
	S 411	QSW0683-001Z	PUSH SWITCH	VCR	
	S 412	QSW0683-001Z	PUSH SWITCH	CD	
	S 413	QSW0683-001Z	PUSH SWITCH	DOWN	
	S 414	QSW0683-001Z	PUSH SWITCH	RIGHT	
	S 415	QSW0683-001Z	PUSH SWITCH	VOL.UP	
	S 416	QSW0683-001Z	PUSH SWITCH	MEMORY	
	S 417	QSW0683-001Z	PUSH SWITCH	FM	
	S 418	QSW0683-001Z	PUSH SWITCH	AM	
	S 421	QSW0683-001Z	PUSH SWITCH	POWER	
	ST741	QNB0065-002	SPK TERMINAL	FRONT	
	ST742	QNB0070-002	SPK TERMINAL	CNT/SR	
	X 401	QAX0246-001Z	RESONATOR		

■ **Electrical parts list (Audio signal input board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 519	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 520	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 521	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 522	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 523	QFLC1HJ-683Z	M CAPACITOR	.068MF 5% 50V	
	C 524	QFLC1HJ-683Z	M CAPACITOR	.068MF 5% 50V	
	C 525	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V	
	C 526	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V	
	C 527	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V	
	C 528	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V	
	C 529	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 530	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 531	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 532	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 533	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 534	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 535	NCB31CK-223X	C CAPACITOR		
	C 536	NCB31CK-223X	C CAPACITOR		
	C 537	NCB31CK-223X	C CAPACITOR		
	C 541	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 542	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 544	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 545	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 546	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 549	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 550	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 551	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 552	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 553	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 554	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 555	NCB31CK-223X	C CAPACITOR		
	C 556	NCB31CK-223X	C CAPACITOR		
	C 557	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 558	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 559	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 560	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 561	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 562	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 563	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 564	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 565	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 581	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 601	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 602	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 603	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 604	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 605	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 606	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	CL501	QZW0038-001	WIRE CLAMP		
	CL502	QZW0038-001	WIRE CLAMP		
	CN205	QGD2501C1-04Z	SOCKET		
	CN411	QGF1205C1-17	CONNECTOR		
	CN501	QGB2510J1-20	CONNECTOR		
	CN502	QGF1205C1-16	CONNECTOR		
	CN503	QGB2510J1-12	CONNECTOR		
	CN505	QJP001-031401	SHI CR C-B WIRE		
	CN506	QJP002-021401	SHI CR C-B WIRE		
	CN507	QJP001-031101	SHI CR C-B WIRE		
	CN511	QGB2510K1-20	B TO B CONNE		
	CN601	QGB2510J1-20	CONNECTOR		
	D 503	MTZJ7.5C-T2	Z DIODE		
	D 504	MTZJ7.5C-T2	Z DIODE		
	D 505	MTZJ13C-T2	Z DIODE		

⚠	Item	Parts number	Parts name	Remarks	Area
	D 506	MTZJ13C-T2	Z DIODE		
	D 507	MTZJ5.6C-T2	Z DIODE		
	D 508	MTZJ5.6C-T2	Z DIODE		
	D 509	1SS355-X	DIODE		
	D 519	MTZJ10C-T2	Z DIODE		
	EP502	QNZ0136-001Z	EARTH PLATE		
	FL501	QQR0590-001	FILTER		
	FL502	QQR0590-001	FILTER		
	HS512	E70306-001	HEAT SINK		
	HS513	E70306-001	HEAT SINK		
	HS514	E70306-001	HEAT SINK		
	HS515	E70306-001	HEAT SINK		
	HS520	E70306-001	HEAT SINK		
	IC501	M61501FP	IC		
	IC503	BA15218F-XE	IC		
	J 504	QNN0060-001	PIN JACK	SUBWOOFER OUT	
	O 501	2SC3576-JVC-T	TRANSISTOR		
	O 502	2SC3576-JVC-T	TRANSISTOR		
	O 503	2SC3576-JVC-T	TRANSISTOR		
	O 505	2SC3576-JVC-T	TRANSISTOR		
	O 506	2SC3576-JVC-T	TRANSISTOR		
	O 507	2SC3576-JVC-T	TRANSISTOR		
	O 508	2SC3576-JVC-T	TRANSISTOR		
	O 509	DTA114YKA-X	TRANSISTOR		
⚠	O 510	KTA1271/OY/-T	TRANSISTOR		
⚠	O 511	KTC3203/OY/-T	TRANSISTOR		
⚠	O 512	KTA1046/Y/	TRANSISTOR		
⚠	O 513	2SD2395/EF/	TRANSISTOR		
⚠	O 514	2SD2395/EF/	TRANSISTOR		
⚠	Q 515	2SD2395/EF/	TRANSISTOR		
	O 516	DTA114YKA-X	TRANSISTOR		
⚠	O 518	KTC3203/OY/-T	TRANSISTOR		
⚠	O 520	2SD2395/EF/	TRANSISTOR		
	R 529	NRSA63J-102X	MG RESISTOR		
	R 530	NRSA63J-102X	MG RESISTOR		
	R 531	NRSA63J-103X	MG RESISTOR		
	R 532	NRSA63J-103X	MG RESISTOR		
	R 533	NRSA63J-472X	MG RESISTOR		
	R 534	NRSA63J-472X	MG RESISTOR		
	R 535	NRSA63J-103X	MG RESISTOR		
	R 536	NRSA63J-103X	MG RESISTOR		
	R 537	NRSA63J-103X	MG RESISTOR		
	R 538	NRSA63J-103X	MG RESISTOR		
⚠	R 541	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
⚠	R 542	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R 545	NRSA63J-104X	MG RESISTOR		
	R 546	NRSA63J-104X	MG RESISTOR		
	R 547	NRSA63J-102X	MG RESISTOR		
	R 548	NRSA63J-102X	MG RESISTOR		
	R 549	NRSA63J-103X	MG RESISTOR		
	R 550	NRSA63J-103X	MG RESISTOR		
	R 552	NRSA63J-104X	MG RESISTOR		
	R 554	NRSA63J-273X	MG RESISTOR		
	R 556	NRSA63J-102X	MG RESISTOR		
	R 557	NRSA63J-104X	MG RESISTOR		
	R 558	NRSA63J-104X	MG RESISTOR		
	R 559	NRSA63J-102X	MG RESISTOR		
	R 561	NRSA63J-103X	MG RESISTOR		
	R 569	NRSA63J-104X	MG RESISTOR		
	R 570	NRSA63J-104X	MG RESISTOR		
	R 571	NRSA63J-102X	MG RESISTOR		
	R 572	NRSA63J-102X	MG RESISTOR		
	R 573	NRSA63J-103X	MG RESISTOR		

■ **Electrical parts list (Audio signal input board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 574	NRSA63J-103X	MG RESISTOR		
	R 575	NRSA63J-472X	MG RESISTOR		
	R 576	NRSA63J-472X	MG RESISTOR		
⚠	R 577	QRJ146J-220X	UNF C RESISTOR	22 5% 1/4W	
	R 578	NRSA63J-102X	MG RESISTOR		
⚠	R 579	QRZ9005-680X	F RESISTOR	68 1/0W	
	R 580	QRZ9005-680X	F RESISTOR	68 1/0W	
⚠	R 581	QRZ9005-100X	F RESISTOR	10 1/0W	
⚠	R 582	QRJ146J-222X	UNF C RESISTOR	2.2K 5% 1/4W	
⚠	R 583	QRZ9005-100X	F RESISTOR	10 1/0W	
⚠	R 584	QRJ146J-222X	UNF C RESISTOR	2.2K 5% 1/4W	
⚠	R 585	QRZ9005-100X	F RESISTOR	10 1/0W	
⚠	R 586	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W	
⚠	R 587	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
⚠	R 588	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W	
⚠	R 589	QRZ9005-120X	F RESISTOR	12 1/0W	
⚠	R 590	QRJ146J-682X	UNF C RESISTOR	6.8K 5% 1/4W	
⚠	R 591	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
⚠	R 592	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
⚠	R 593	QRJ146J-272X	UNF C RESISTOR	2.7K 5% 1/4W	
⚠	R 594	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
⚠	R 595	QRZ9005-100X	F RESISTOR	10 1/0W	
⚠	R 596	QRJ146J-102X	UNF C RESISTOR	1.0K 5% 1/4W	
	R1617	NRSA63J-104X	MG RESISTOR		
	R1618	NRSA63J-104X	MG RESISTOR		
	R1619	NRSA63J-104X	MG RESISTOR		
	R1620	NRSA63J-104X	MG RESISTOR		
	R1621	NRSA63J-102X	MG RESISTOR		

■ **Electrical parts list (DSP board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-221X	C CAPACITOR		
	C 602	NCB31HK-221X	C CAPACITOR		
	C 603	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 604	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 605	NCF31CZ-104X	C CAPACITOR		
	C 606	NCF31CZ-104X	C CAPACITOR		
	C 607	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 608	NCF31CZ-104X	C CAPACITOR		
	C 609	NCF31CZ-104X	C CAPACITOR		
	C 610	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 611	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 612	NCB31CK-103X	C CAPACITOR		
	C 621	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 622	NCS31HJ-101X	C CAPACITOR		
	C 623	NCF31AZ-105X	C CAPACITOR		
	C 624	NCF31CZ-104X	C CAPACITOR		
	C 626	NCF31AZ-105X	C CAPACITOR		
	C 627	NCF31AZ-105X	C CAPACITOR		
	C 628	NCB31CK-103X	C CAPACITOR		
	C 631	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 632	NCB31CK-103X	C CAPACITOR		
	C 633	NCF31CZ-104X	C CAPACITOR		
	C 634	NCF31CZ-104X	C CAPACITOR		
	C 635	NCF31CZ-104X	C CAPACITOR		
	C 636	NCB31CK-473X	C CAPACITOR		
	C 638	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 639	NCB31CK-103X	C CAPACITOR		
	C 641	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 642	NCB31CK-103X	C CAPACITOR		
	C 643	NCB31AK-474X	C CAPACITOR		
	C 644	NCB31CK-103X	C CAPACITOR		
	C 645	NCS31HJ-101X	C CAPACITOR		
	C 646	NCB31CK-103X	C CAPACITOR		
	C 647	NCS31HJ-220X	C CAPACITOR		
	C 648	NCS31HJ-180X	C CAPACITOR		
	C 649	NCS31HJ-121X	C CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR		
	C 654	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 661	NCB31CK-103X	C CAPACITOR		
	C 671	NCB31CK-103X	C CAPACITOR		
	C 672	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 673	NCB31CK-103X	C CAPACITOR		
	C 677	NCS31HJ-101X	C CAPACITOR		
	C 679	NCS31HJ-101X	C CAPACITOR		
	C 681	NCB31CK-103X	C CAPACITOR		
	C 682	NCB31CK-103X	C CAPACITOR		
	C 683	NCB31CK-103X	C CAPACITOR		
	C 684	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 685	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 686	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 687	NCB31CK-103X	C CAPACITOR		
	C 688	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 689	NCB31CK-103X	C CAPACITOR		
	C 690	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 693	NCB31CK-103X	C CAPACITOR		
	C 694	NCB31CK-104X	C CAPACITOR		
	CN681	QGB2510K1-20	B TO B CONNE		
	C2500	QETN1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C2503	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2504	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2507	NCS31HJ-330X	C CAPACITOR		
	C2508	NCS31HJ-330X	C CAPACITOR		
	C2512	NCF31CZ-104X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C2513	NCB31HK-122X	C CAPACITOR		
	C2514	NCB31HK-122X	C CAPACITOR		
	C2515	NCS31HJ-121X	C CAPACITOR		
	C2516	NCS31HJ-121X	C CAPACITOR		
	C2517	NCS31HJ-391X	C CAPACITOR		
	C2518	NCS31HJ-391X	C CAPACITOR		
	C2525	NCB31HK-102X	C CAPACITOR		
	C2526	NCB31HK-102X	C CAPACITOR		
	C2527	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2528	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2531	NCS31HJ-560X	C CAPACITOR		
	C2532	NCS31HJ-560X	C CAPACITOR		
	C2533	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2534	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2539	NCF31CZ-104X	C CAPACITOR		
	C2540	NCF31CZ-104X	C CAPACITOR		
	C2551	NCS31HJ-560X	C CAPACITOR		
	C2552	NCS31HJ-560X	C CAPACITOR		
	C2555	NCF31CZ-104X	C CAPACITOR		
	C2556	NCF31CZ-104X	C CAPACITOR		
	C2561	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2562	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2563	NCS31HJ-220X	C CAPACITOR		
	C2564	NCS31HJ-220X	C CAPACITOR		
	C2569	NCF31CZ-104X	C CAPACITOR		
	C2570	NCF31CZ-104X	C CAPACITOR		
	C2575	NCB31HK-102X	C CAPACITOR		
	C2576	NCB31HK-102X	C CAPACITOR		
	C2577	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2578	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2581	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2582	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C2583	NCS31HJ-220X	C CAPACITOR		
	C2584	NCS31HJ-560X	C CAPACITOR		
	C2585	NCF31CZ-104X	C CAPACITOR		
	C2586	NCF31CZ-104X	C CAPACITOR		
	C2587	NCS31HJ-560X	C CAPACITOR		
	C2588	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C2589	NCF31CZ-104X	C CAPACITOR		
	C2590	NCF31CZ-104X	C CAPACITOR		
	C2592	NCB31HK-223X	C CAPACITOR		
	C2594	NCF31CZ-104X	C CAPACITOR		
	C2595	NCB31HK-102X	C CAPACITOR		
	C2597	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2598	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	D 607	1SS355-X	DIODE		
	D 608	1SS355-X	DIODE		
	IC601	AK4527BVQ	IC		
	IC609	BA15218F-XE	IC		
	IC610	BA15218F-XE	IC		
	IC611	BU4066BCF-X	IC		
	IC621	TC7SU04FU-X	IC		
	IC622	TC7SU04FU-X	IC		
	IC631	TC9446F-014	IC		
	IC641	W24L010AJ-12-X	IC		
	IC650	BA15218F-XE	IC		
	IC651	BA15218F-XE	IC		
	IC652	IMX9-W	TRANSISTOR		
	IC661	BA15218F-XE	IC		
	IC662	IMX9-W	TRANSISTOR		
	IC671	UPD784215AGC103	IC		
	IC672	TC7SET32FU-X	IC		
	IC681	PQ3DZ53-X	IC		

■ **Electrical parts list (DSP board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	IC682	IMX9-W	TRANSISTOR		
	IC683	RN5RZ33BA-X	IC		
	IC690	BA15218F-XE	IC		
	IC691	BA15218F-XE	IC		
	J 601	QNN0347-001	PIN JACK		
	K 601	NQR0269-004X	FERRITE BEADS		
	O 601	DTC114YE-X	TRANSISTOR		
	O 607	DTA144EKA-X	TRANSISTOR		
	O 670	DTC114YE-X	TRANSISTOR		
	Q 671	2SD2114K/VW/-X	CHIP TRANSISTOR		
	O 672	DTC114YE-X	TRANSISTOR		
	O 673	DTA144EKA-X	TRANSISTOR		
	O2501	DTA144EKA-X	TRANSISTOR		
	R 600	NRSA63J-0R0X	MG RESISTOR		
	R 601	NRSA63J-473X	MG RESISTOR		
	R 602	NRSA63J-473X	MG RESISTOR		
	R 603	NRSA63J-473X	MG RESISTOR		
	R 606	NRSA63J-221X	MG RESISTOR		
	R 607	NRSA63J-221X	MG RESISTOR		
	R 608	NRSA63J-221X	MG RESISTOR		
	R 609	NRSA63J-221X	MG RESISTOR		
	R 611	NRSA63J-221X	MG RESISTOR		
	R 612	NRSA63J-221X	MG RESISTOR		
	R 613	NRSA63J-822X	MG RESISTOR		
	R 615	NRSA63J-432X	MG RESISTOR		
	R 617	NRSA63J-103X	MG RESISTOR		
	R 618	NRSA63J-103X	MG RESISTOR		
	R 620	NRSA63J-221X	MG RESISTOR		
	R 621	NRSA63J-221X	MG RESISTOR		
	R 622	NRSA63J-750X	MG RESISTOR		
	R 623	NRSA63J-101X	MG RESISTOR		
	R 627	NRSA63J-472X	MG RESISTOR		
	R 628	NRSA63J-183X	MG RESISTOR		
	R 631	NRSA63J-0R0X	MG RESISTOR		
	R 632	NRSA63J-0R0X	MG RESISTOR		
	R 633	NRSA63J-221X	MG RESISTOR		
	R 639	NRSA63J-472X	MG RESISTOR		
	R 640	NRSA63J-0R0X	MG RESISTOR		
	R 641	NRSA63F-102X	MG RESISTOR		
	R 642	NRSA63J-103X	MG RESISTOR		
	R 643	NRSA63J-101X	MG RESISTOR		
	R 644	NRSA63J-153X	MG RESISTOR		
	R 645	NRSA63F-102X	MG RESISTOR		
	R 646	NRSA63J-103X	MG RESISTOR		
	R 647	NRSA63J-225X	MG RESISTOR		
	R 648	NRSA63J-472X	MG RESISTOR		
	R 657	NRSA63J-103X	MG RESISTOR		
	R 661	NRSA63J-221X	MG RESISTOR		
	R 662	NRSA63J-221X	MG RESISTOR		
	R 663	NRSA63J-221X	MG RESISTOR		
	R 664	NRSA63J-221X	MG RESISTOR		
	R 669	NRSA63J-103X	MG RESISTOR		
	R 670	NRSA63J-103X	MG RESISTOR		
	R 671	NRSA63J-103X	MG RESISTOR		
	R 672	NRSA63J-105X	MG RESISTOR		
	R 673	NRSA63J-432X	MG RESISTOR		
	R 674	NRSA63J-432X	MG RESISTOR		
	R 675	NRSA63J-432X	MG RESISTOR		
	R 676	NRSA63J-432X	MG RESISTOR		
	R 677	NRSA63J-822X	MG RESISTOR		
	R 678	NRSA63J-822X	MG RESISTOR		
	R 679	NRSA63J-822X	MG RESISTOR		
	R 680	NRSA63J-822X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R 681	NRSA63J-103X	MG RESISTOR		
	R 682	NRSA63J-103X	MG RESISTOR		
	R 683	NRSA63J-0R0X	MG RESISTOR		
	R 684	NRSA63J-0R0X	MG RESISTOR		
	R 685	NRSA63J-103X	MG RESISTOR		
	R 686	NRSA63J-151X	MG RESISTOR		
	R 687	NRSA63J-0R0X	MG RESISTOR		
	R 688	NRSA63J-0R0X	MG RESISTOR		
	R 689	NRSA63J-0R0X	MG RESISTOR		
	R 691	NRSA63J-221X	MG RESISTOR		
	R 692	NRSA63J-221X	MG RESISTOR		
	R 693	NRSA63J-221X	MG RESISTOR		
	R 694	NRSA63J-221X	MG RESISTOR		
	R 695	NRSA63J-221X	MG RESISTOR		
	R 696	NRSA63J-221X	MG RESISTOR		
	R 697	NRSA63J-0R0X	MG RESISTOR		
	R 698	NRSA63J-0R0X	MG RESISTOR		
	R2500	NRSA63J-102X	MG RESISTOR		
	R2501	NRSA63J-104X	MG RESISTOR		
	R2502	NRSA63J-104X	MG RESISTOR		
	R2507	NRSA63J-223X	MG RESISTOR		
	R2508	NRSA63J-223X	MG RESISTOR		
	R2509	NRSA63J-223X	MG RESISTOR		
	R2510	NRSA63J-223X	MG RESISTOR		
	R2511	NRSA63J-912X	MG RESISTOR		
	R2512	NRSA63J-912X	MG RESISTOR		
	R2513	NRSA63J-103X	MG RESISTOR		
	R2514	NRSA63J-103X	MG RESISTOR		
	R2515	NRSA63J-103X	MG RESISTOR		
	R2516	NRSA63J-103X	MG RESISTOR		
	R2517	NRSA63J-103X	MG RESISTOR		
	R2518	NRSA63J-103X	MG RESISTOR		
	R2519	NRSA63J-331X	MG RESISTOR		
	R2520	NRSA63J-331X	MG RESISTOR		
	R2521	NRSA63J-331X	MG RESISTOR		
	R2522	NRSA63J-331X	MG RESISTOR		
	R2525	NRSA63J-471X	MG RESISTOR		
	R2526	NRSA63J-471X	MG RESISTOR		
	R2527	NRSA63J-104X	MG RESISTOR		
	R2528	NRSA63J-104X	MG RESISTOR		
	R2529	NRSA63J-103X	MG RESISTOR		
	R2530	NRSA63J-103X	MG RESISTOR		
	R2531	NRSA63J-912X	MG RESISTOR		
	R2532	NRSA63J-912X	MG RESISTOR		
	R2533	NRSA63J-103X	MG RESISTOR		
	R2534	NRSA63J-103X	MG RESISTOR		
	R2535	NRSA63J-103X	MG RESISTOR		
	R2536	NRSA63J-103X	MG RESISTOR		
	R2537	NRSA63J-104X	MG RESISTOR		
	R2538	NRSA63J-104X	MG RESISTOR		
	R2550	NRSA63J-272X	MG RESISTOR		
	R2551	NRSA63J-103X	MG RESISTOR		
	R2552	NRSA63J-103X	MG RESISTOR		
	R2553	NRSA63J-153X	MG RESISTOR		
	R2554	NRSA63J-153X	MG RESISTOR		
	R2555	NRSA63J-752X	MG RESISTOR		
	R2556	NRSA63J-752X	MG RESISTOR		
	R2557	NRSA63J-103X	MG RESISTOR		
	R2558	NRSA63J-223X	MG RESISTOR		
	R2560	NRSA63J-105X	MG RESISTOR		
	R2561	NRSA63J-104X	MG RESISTOR		
	R2562	NRSA63J-104X	MG RESISTOR		
	R2563	NRSA63J-103X	MG RESISTOR		

■ **Electrical parts list (DSP board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	R2564	NRSA63J-103X	MG RESISTOR		
	R2565	NRSA63J-302X	MG RESISTOR		
	R2566	NRSA63J-302X	MG RESISTOR		
	R2567	NRSA63J-103X	MG RESISTOR		
	R2568	NRSA63J-103X	MG RESISTOR		
	R2575	NRSA63J-102X	MG RESISTOR		
	R2576	NRSA63J-102X	MG RESISTOR		
	R2577	NRSA63J-104X	MG RESISTOR		
	R2578	NRSA63J-104X	MG RESISTOR		
	R2581	NRSA63J-104X	MG RESISTOR		
	R2582	NRSA63J-104X	MG RESISTOR		
	R2583	NRSA63J-103X	MG RESISTOR		
	R2584	NRSA63J-223X	MG RESISTOR		
	R2585	NRSA63J-272X	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		
	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	GP1FA550RZ	OPT RECEIVER		
	X 631	NAX0385-001X	CRYSTAL		
	X 671	NAX0275-001X	1COSCIALLATOR		

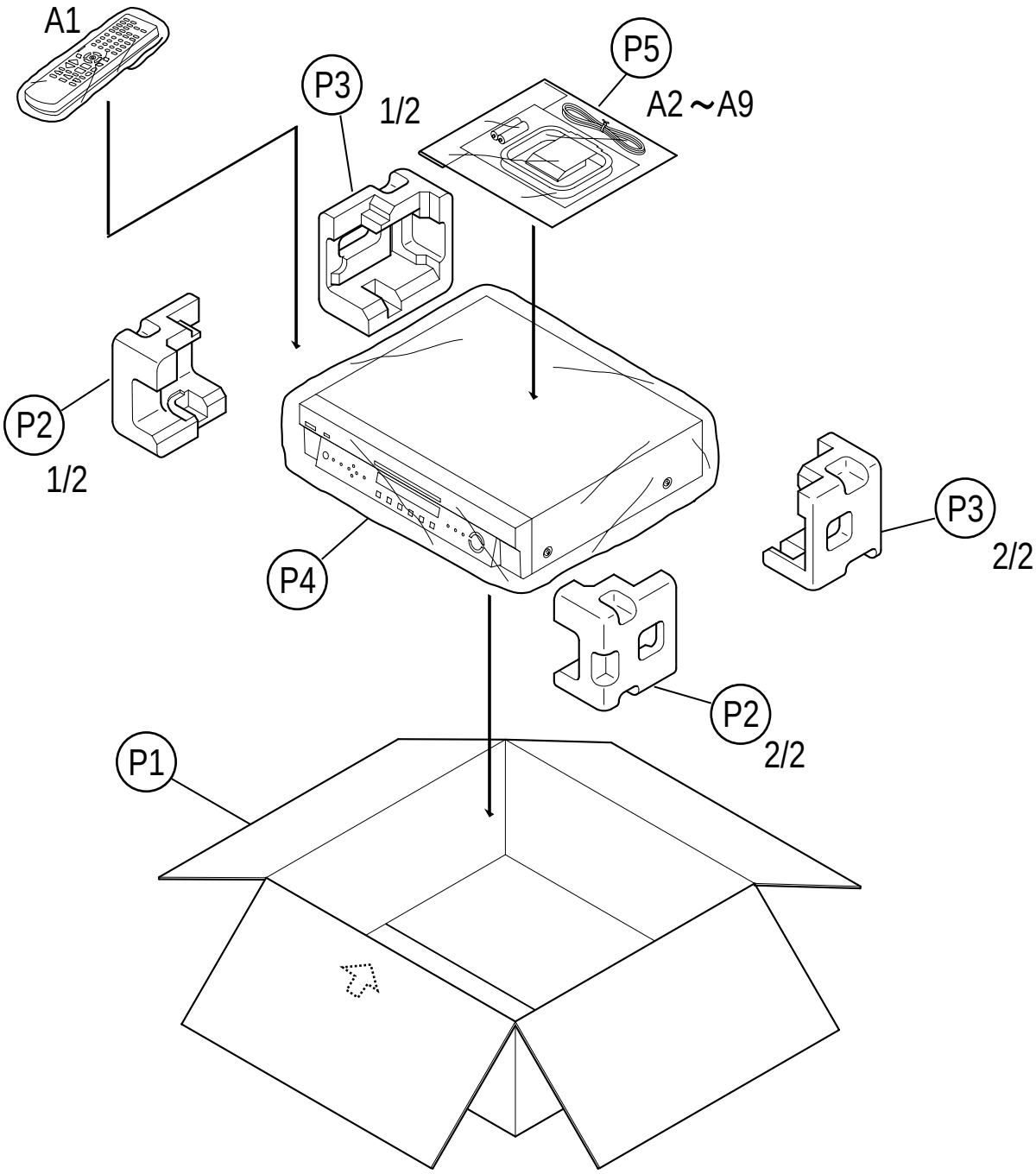
■ **Electrical parts list (Tuner board)** **Block No. 05**

⚠	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	QEKC1CM-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	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 133	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 134	NCB21HK-222X	C CAPACITOR		
	C 135	NCB21HK-223X	C CAPACITOR		
	C 136	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 137	NCB21HK-331X	C CAPACITOR		
	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	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 147	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 148	QEKC1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 149	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 150	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 156	QDGB1HK-102Y	C CAPACITOR		
	C 157	NCB21HK-473X	C CAPACITOR		
	C 158	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 161	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 162	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 163	NCB21HK-223X	C CAPACITOR		
	C 164	NCB21HK-473X	C CAPACITOR		
	C 168	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 184	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 185	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 186	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	CF101	QAX0419-001Z	C FILTER		
	CF102	QAX0604-001Z	C FILTER		
	CF103	QAX0519-001Z	C FILTER		
	CN111	QGB2501K2-12	CONECTOR		
	D 121	1SS133-T2	SI DIODE		
	D 123	1SS133-T2	SI DIODE		
	D 124	1SS133-T2	SI DIODE		
	D 125	1SS133-T2	SI DIODE		
	D 129	1SS133-T2	SI DIODE		
	IC102	LA1838	IC		
	IC121	LC72136N	IC		
	O 102	2SC535/BC/-T	TRANSISTOR		
	O 103	2SC461/BC/-T	TRANSISTOR		
	O 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 1/0W	
	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 2 M M
Block No. M 3 M M



■ Parts list (Packing)

Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	LV20978-003A	CARTON BOX	1		
	P 2	LV20963-001A	CUSHION(FRONT)	1		
	P 3	LV20964-001A	CUSHION(REAR)	1		
	P 4	QPC06507015P	POLY BAG	1	FOR SET	
	P 5	QPA02503505P	POLY BAG	1	FOR INST	

■ Parts list (Accessories)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	RM-SRXE100J	REMOCON	1		
	A 2	----------	BATTERY	2		
	A 3	LVT0650-001A	INST BOOK	1	ENG	J
		LVT0650-002A	INST BOOK	1	ENG, FRE	C
	A 4	EWP503-001C	ANT.WIRE	1		
	A 5	QAL0204-001	AM LOOP ANT	1		
	A 6	YU20333	SAFETY INST.	1		
	A 7	BT-52004-1	WARRANTY CARD	1		C
	A 8	BT-20071B	JVC CENTER LIST	1		C
	A 9	BT-51020-2	REGISTER CARD	1		J

RX-E100SL

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AUDIO & COMMUNICATION BUSINESS DIVISION
PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

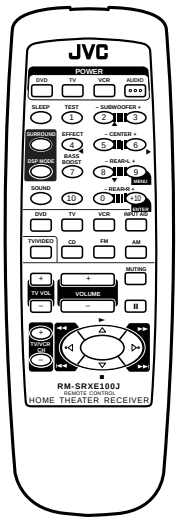
(No.20955)

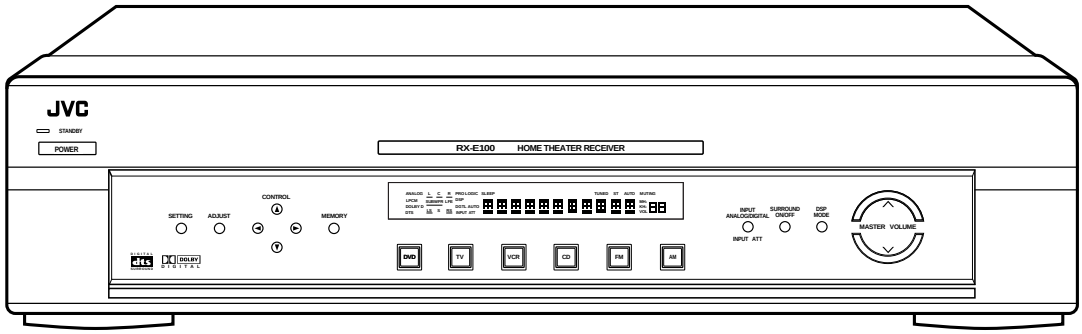
Printed in Japan
200105(V)

JVC

HOME THEATER RECEIVER

RX-E100SL





DOLBY DIGITAL

DIGITAL dts SURROUND

INSTRUCTIONS

For Customer Use:

Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____

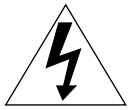
Serial No. _____

LVT0650-001A
[J]

Warnings, Cautions and Others

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

ATTENTION
Afin d'éviter tout risque d'électrocution, d'incendie, etc.:
1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

Caution –– POWER switch!
Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.
Attention –– Commutateur POWER!
Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur POWER ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

For Canada/pour le Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT
ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQUAU FOND

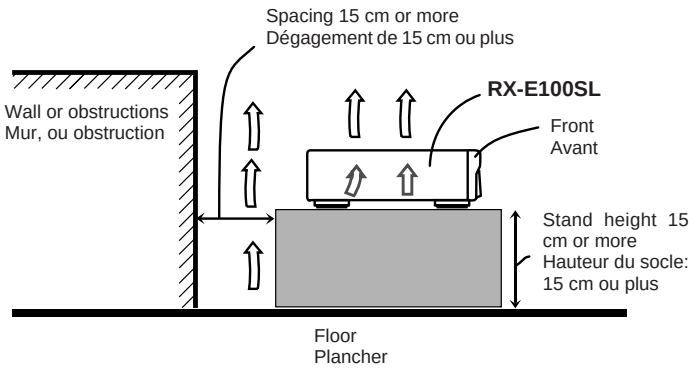
For U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

For Canada/pour Le Canada

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS AS SET OUT IN THE INTERFERENCE-CAUSING EQUIPMENT STANDARD ENTITLED "DIGITAL APPARATUS," ICES-003 OF THE DEPARTMENT OF COMMUNICATIONS.
CET APPAREIL NUMERIQUE RESPECTE LES LIMITES DE BRUITS RADIOELECTRIQUES APPLICABLES AUX APPAREILS NUMERIQUES DE CLASSE B PRESCRITES DANS LA NORME SUR LE MATERIEL BROUILLEUR; "APPAREILS NUMERIQUES", NMB-003 EDICTEE PAR LE MINISTRE DES COMMUNICATIONS.

Caution: Proper Ventilation
To avoid risk of electric shock and fire and to protect from damage.
Locate the apparatus as follows:
Front: No obstructions open spacing.
Sides: No obstructions in 10 cm from the sides.
Top: No obstructions in 10 cm from the top.
Back: No obstructions in 15 cm from the back
Bottom: No obstructions, place on the level surface.
In addition, maintain the best possible air circulation as illustrated.



Attention: Ventilation Correcte
Pour éviter les chocs électriques, l'incendie et tout autre dégât.
Disposer l'appareil en tenant compte des impératifs suivants
Avant: Rien ne doit gêner le dégagement
Flancs: Laisser 10 cm de dégagement latéral
Dessus: Laisser 10 cm de dégagement supérieur
Arrière: Laisser 15 cm de dégagement arrière
Dessous: Rien ne doit obstruer par dessous; poser l'appareil sur une surface plate.
Veiller également à ce que l'air circule le mieux possible comme illustré.

Table of Contents

This mark indicates that the remote control CAN ONLY be used for the operation explained.

This mark indicates that only the remote control CANNOT be used for the operation explained.

Before Installation

General Precautions

- DO NOT insert any metal object into the receiver.
- DO NOT disassemble the receiver or remove screws, covers, or cabinet.
- DO NOT expose the receiver to rain or moisture.

Locations

- Install the receiver in a location that is level and protected from moisture.
- The temperature around the receiver must be between 23˚F and 95˚F (–5˚C and 35˚C).
- Make sure there is good ventilation around the receiver. Poor ventilation could cause overheating and damage the receiver.

Handling the receiver

- DO NOT touch the power cord with wet hands.
- DO NOT pull on the power cord to unplug the cord. When unplugging the cord, always grasp the plug so as not to damage the cord.
- Keep the power cord away from the connecting cords and the antenna. The power cord may cause noise or screen interference. It is recommended to use a coaxial cable for antenna connection, since it is well-shielded against interference.
- When a power failure occurs, or when you unplug the power cord, the preset settings such as preset FM/AM channels and sound adjustments may be erased in a few days.

Checking the Supplied Accessories

Check to be sure you have all of the following supplied accessories. The number in the parentheses indicates the quantity of the pieces supplied.

- **Remote Control (1)**
- **Batteries (2)**
- **AM Loop Antenna (1)**
- **FM Antenna (1)**

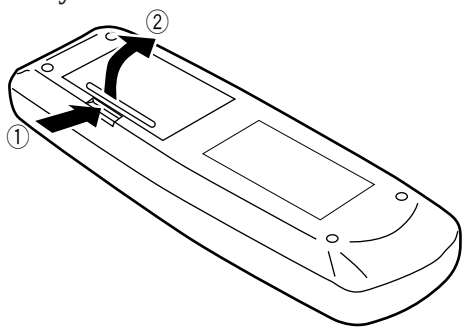
If anything is missing, contact your dealer immediately.

Putting Batteries in the Remote Control

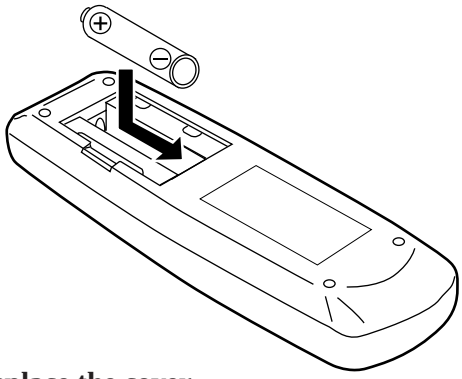
Before using the remote control, put two supplied batteries first.

- When using the remote control, aim the remote control directly at the remote sensor on the receiver.

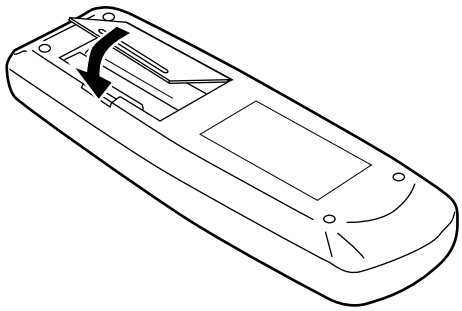
1. On the back of the remote control, remove the battery cover.



2. Insert batteries. Make sure to match the polarity: (+) to (+) and (–) to (–).



3. Replace the cover.



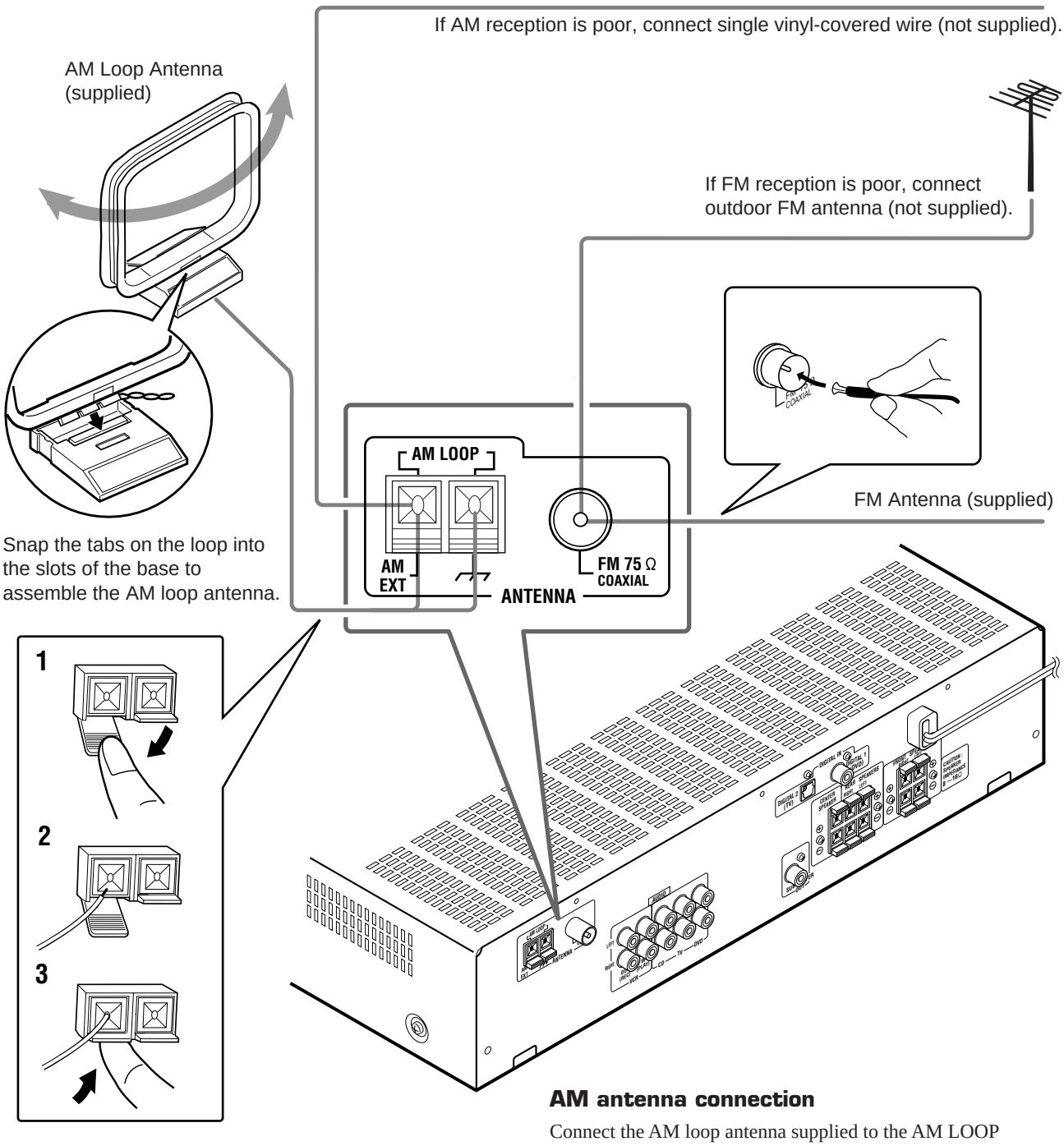
If the range or effectiveness of the remote control decreases, replace the batteries. Use two R6P(SUM-3)/AA(15F) type dry-cell batteries.

CAUTION:

Follow these precautions to avoid leaking or cracking cells:

- Place batteries in the remote control so they match the polarity: (+) to (+) and (–) to (–).
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

Connecting the FM and AM Antennas



AM antenna connection

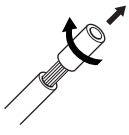
Connect the AM loop antenna supplied to the AM LOOP terminals.

Turn the loop until you have the best reception.

- If reception is poor, connect an outdoor single vinyl-covered wire to the AM EXT terminal. (Keep the AM loop antenna connected.)

Notes:

- *If the AM loop antenna wire is covered with vinyl, remove the vinyl while twisting it as shown to the right.*
- *Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord. This could cause poor reception.*



FM antenna connection

Connect the FM antenna supplied to the FM 75 Ω COAXIAL terminal as temporary measure.

Extend the supplied FM antenna horizontally.

- If reception is poor, connect an outdoor antenna. Before attaching a 75 Ω coaxial cable (with a standard type connector), disconnect the supplied FM antenna.

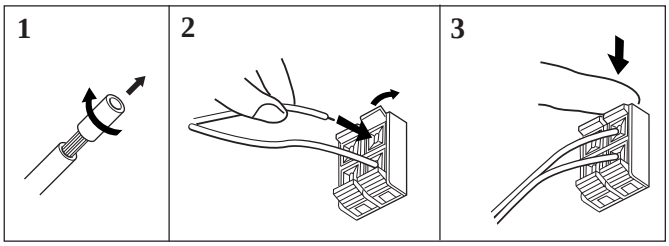
Connecting the Speakers

After connecting the front, center, rear speakers and/or a subwoofer, set the speaker setting information properly to obtain the best possible DSP effect. For details, see page 12.

CAUTION:

Use speakers with the SPEAKER IMPEDANCE indicated by the speaker terminals.

Connecting the front, center, and rear speakers



For each speaker, connect the (+) and (–) terminals on the rear panel to the (+) and (–) terminals marked on the speakers respectively.

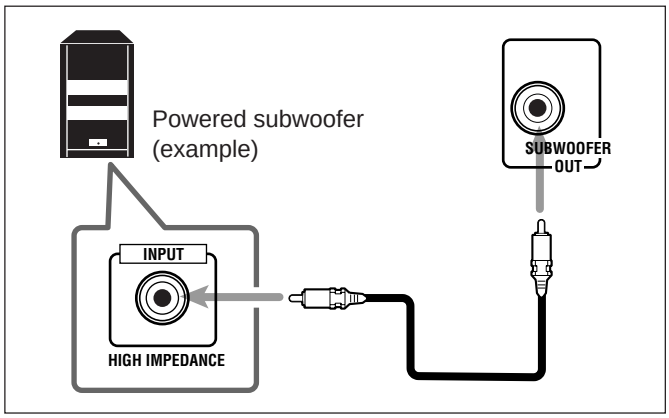
1 Cut, twist and remove the insulation at the end of each speaker cord (not supplied).

2 Open the terminal, then insert the speaker cord.

3 Close the terminal.

Connecting the subwoofer

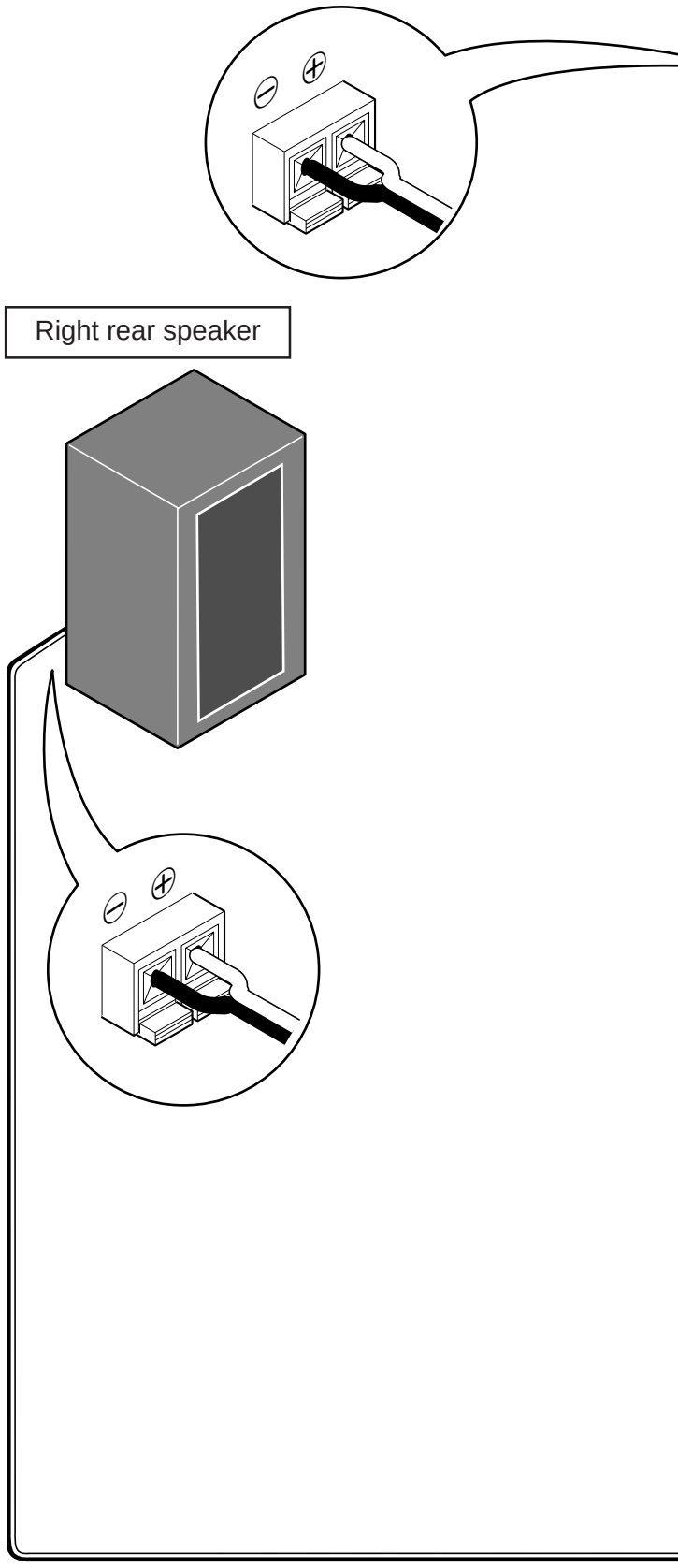
By connecting a subwoofer, you can enhance the bass or reproduce the original LFE signals recorded in the digital software.

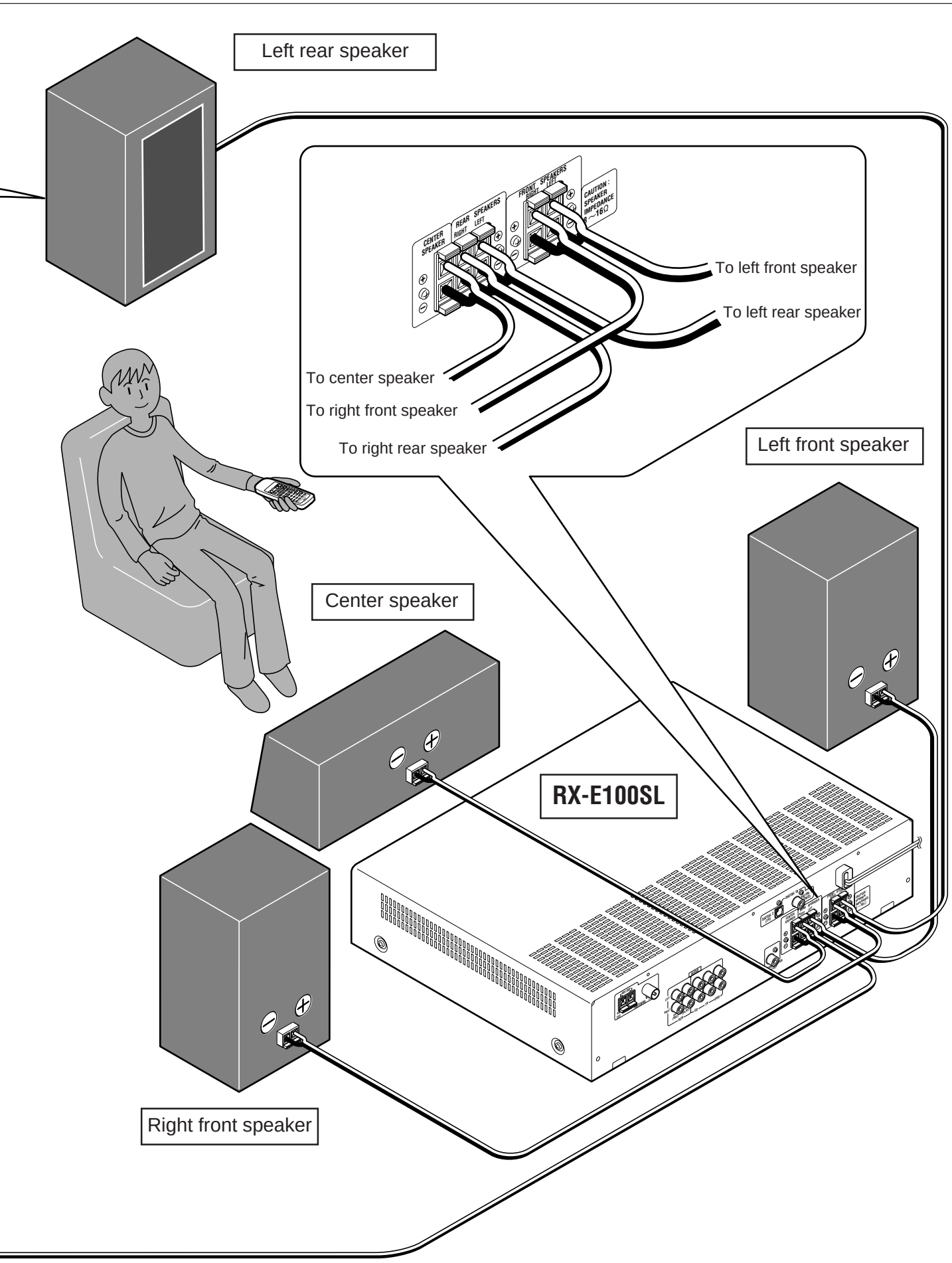


Connect the input jack of a powered subwoofer to the SUBWOOFER OUT jack on the rear panel, using a cable with RCA pin plugs (not supplied).
• Refer also to the manual supplied for your subwoofer.

Since bass sound is non-directional, you can place a subwoofer wherever you like. Normally place it in front of you.

Speaker Layout Diagram

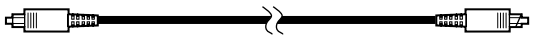



Left rear speaker
CENTER SPEAKER
REAR SPEAKERS RIGHT LEFT
FRONT SPEAKERS RIGHT LEFT
CAUTION : SPEAKER IMPEDANCE 6Ω-16Ω
To left front speaker
To left rear speaker
To center speaker
To right front speaker
To right rear speaker
Left front speaker
Center speaker
RX-E100SL
Right front speaker

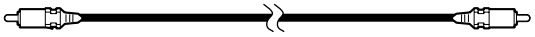
Connecting Audio/Video Components

Connecting cords are not supplied with this unit. Use the cords supplied for the other components or purchase them at an audio or electric appliance store.

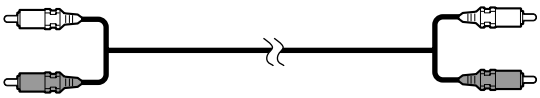
A Optical digital cord



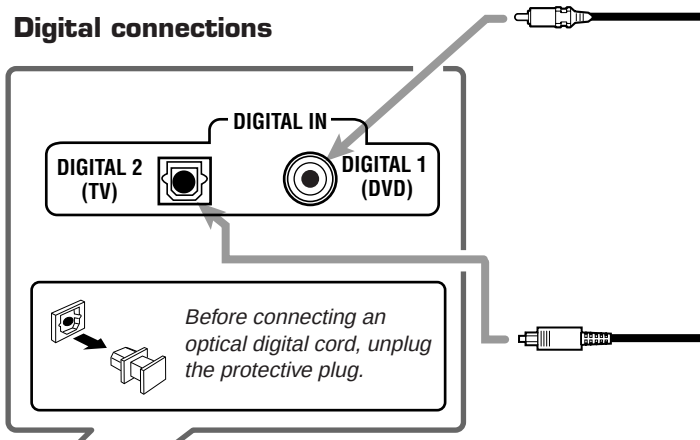
B Coaxial digital cord

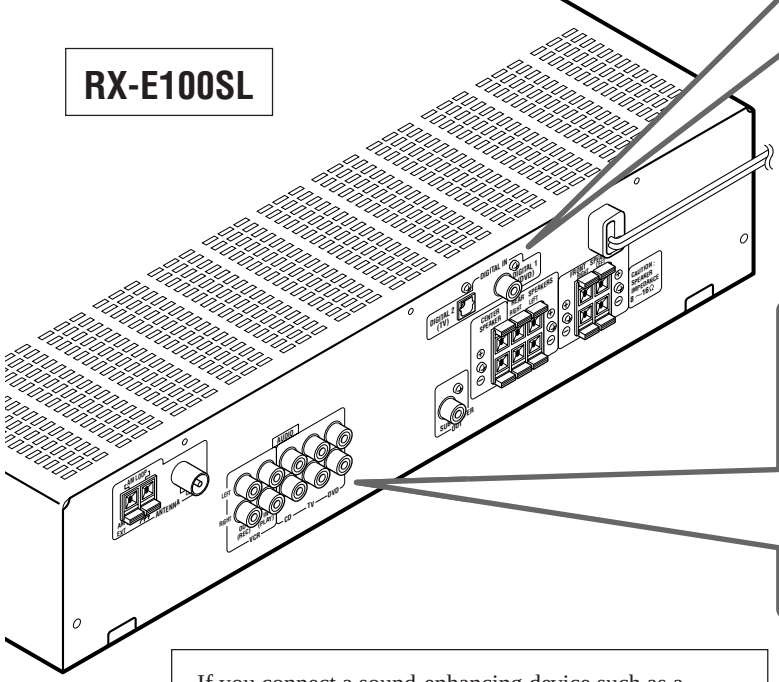


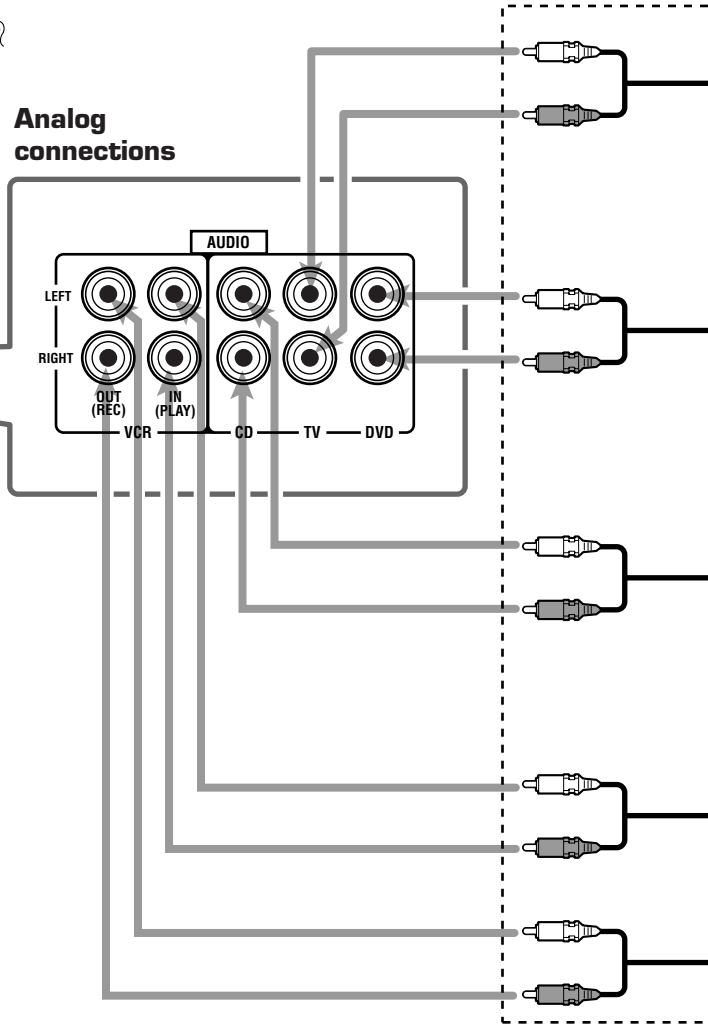
C Audio cord



Turn the power off to all components before connections.





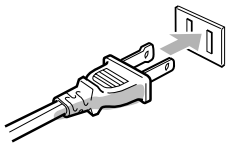


If you connect a sound-enhancing device such as a graphic equalizer between the source components and this receiver, the sound output through this receiver may be distorted.

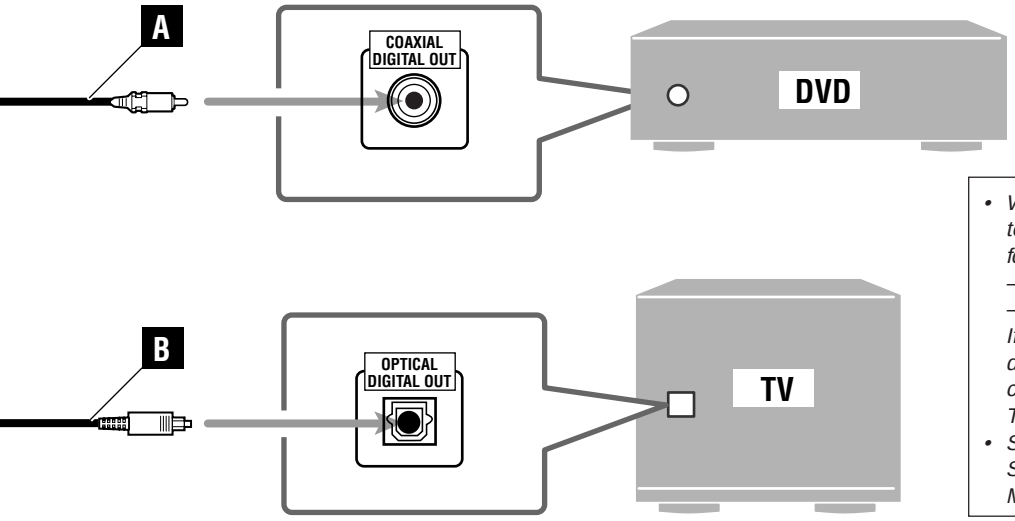
Connecting the Power Cord

Before plugging the receiver into an AC outlet, make sure that all connections have been made.

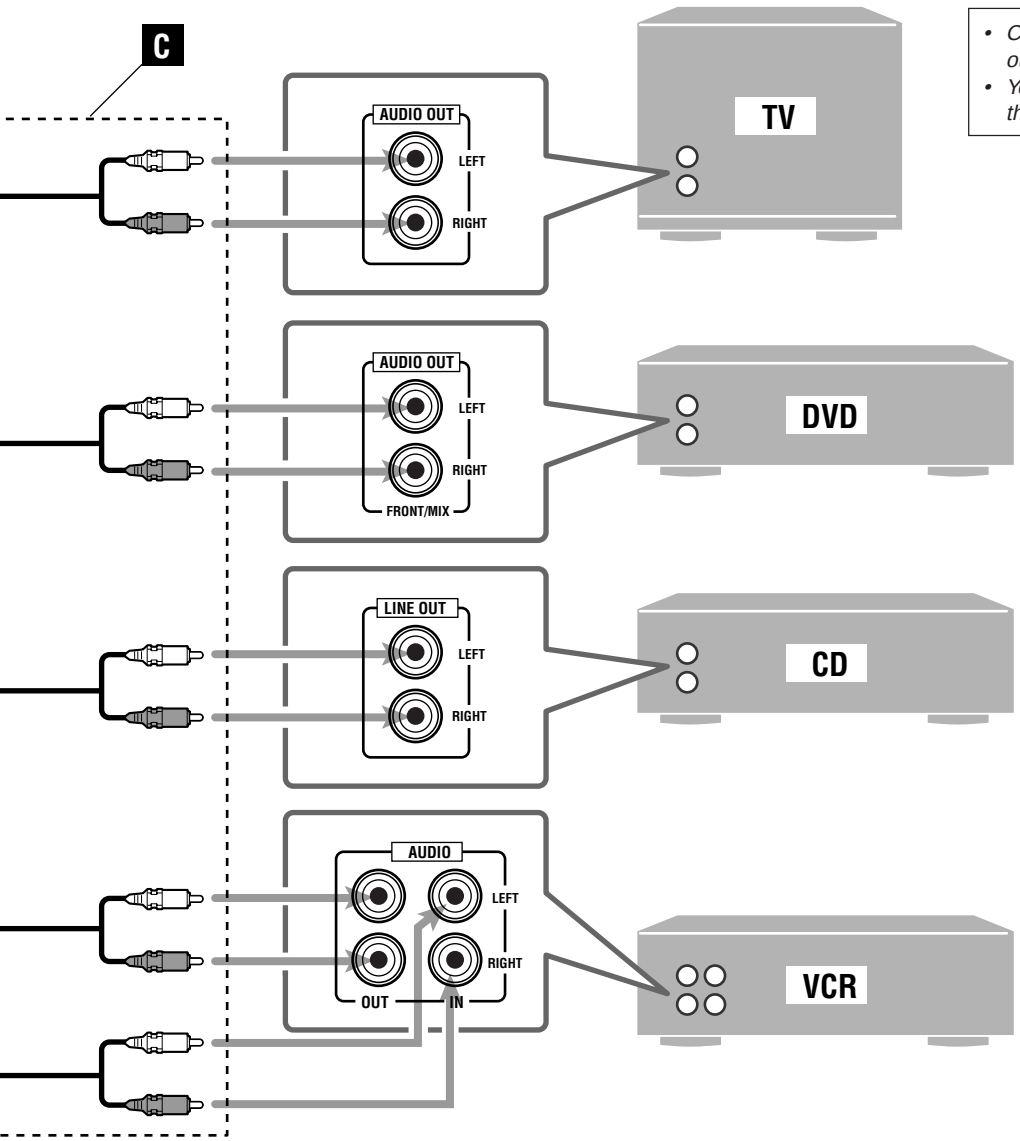
Plug the power cord into an AC outlet.



Illustrations of the input/output terminals below are typical examples.
When you connect other components, refer also to their manuals since the terminal names actually printed on the rear vary among the components.



- *When shipped from the factory, the DIGITAL IN terminals have been set for use with the following components.*
  – DIGITAL 1 (coaxial): For DVD player
  – DIGITAL 2 (optical): For digital TV tuner
  If you connect other components, change the digital input (DIGITAL IN) terminal setting correctly. See "Setting the Digital Input Terminals" on page 10.
- *Select the digital input mode correctly. See "Selecting the Analog or Digital Input Mode" on page 11.*



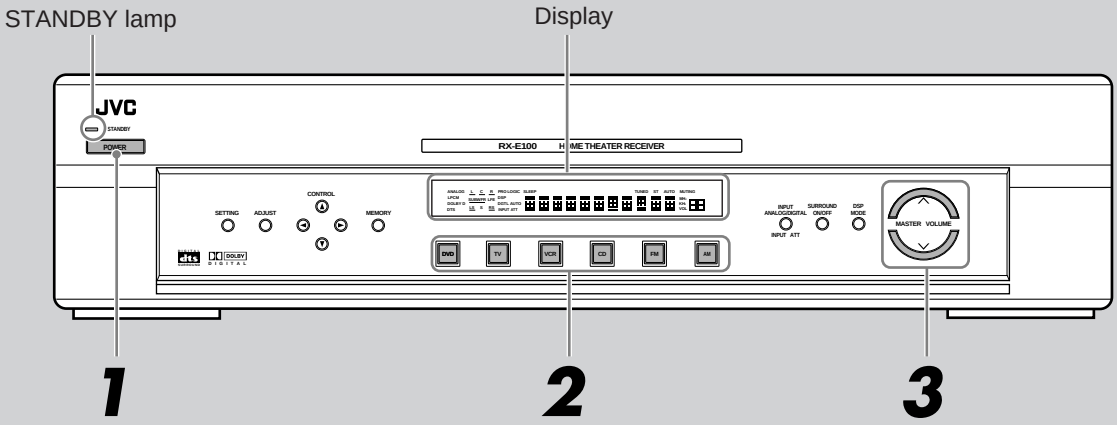
- *Connect the video input directly to the video output on the DVD player and/or VCR.*
- *You can also connect the digital TV tuner using the optical digital cable (see above).*

- *Connect the video out directly to the video input on the TV.*
- *To enjoy the software encoded with Dolby Digital or DTS Digital Surround, connect the DVD player using one of the DIGITAL IN terminals (see above).*

You can also connect the CD player using one of the DIGITAL IN terminals (see above).

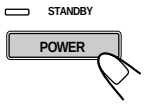
Connect the video out directly to the video input on the TV.

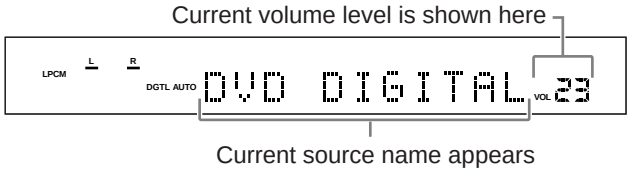
This manual mainly explains operations using the buttons and controls on the front panel. You can also use the buttons on the remote control if they have the similar names (or marks) as those on the front panel.
If operations using the remote control are different from those using the front panel, they are then explained.
• You can also see “Mastering Remote Operations” on page 32.



1 Turn On the Power

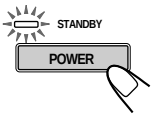
Press POWER (or AUDIO of the POWER buttons on the remote control).
The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.





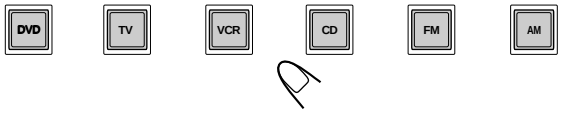
To turn off the power (into standby)

Press POWER (or AUDIO) again.
The STANDBY lamp lights up.
A small amount of power is consumed in standby mode. To turn the power off completely, unplug the AC power cord.



2 Select the Source to Play

Press one of the source selecting buttons.



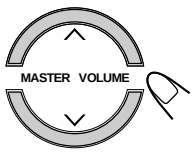
DVD : Select the DVD player.
TV : Select the TV sound.
VCR : Select the VCR.
CD : Select the CD player.
FM : Select an FM broadcast.
AM : Select an AM broadcast.

Note:

When you have connected some digital source components using the digital terminals (see page 6), see “Basic Settings” on pages 10 and 11 to finish the digital input terminal setting and digital input mode setting correctly before use.

3 Adjust the Volume

To increase the volume, press and hold MASTER VOLUME ∧ (or VOLUME + on the remote control).
To decrease the volume, press and hold MASTER VOLUME ∨ (or VOLUME – on the remote control).



CAUTION:

Always set the volume to the minimum before starting any source. If the volume is set at its high level, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

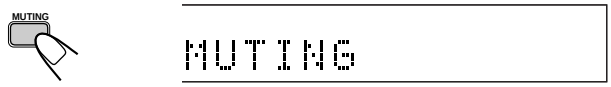
Notes:

- *The volume level can be adjusted within the range of “0” (minimum) to “70” (maximum).*
- *Each time you press the button, the volume level changes by 2 steps from “0” (minimum) to “14” and by 1 step from “14” to “70” (maximum).*

To turn off the sounds temporarily

Remote ONLY

Press MUTING **on the remote control** to mute the sound through all speakers connected.



"MUTING" appears on the display and the volume turns off (the volume level indicator goes off).

To restore the sound, press MUTING again so that "MUTING OFF" appears on the display.

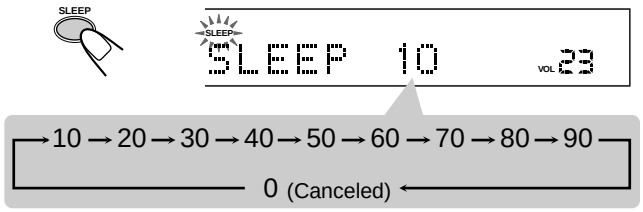
- Pressing MASTER VOLUME ∧/∨ (or VOLUME +/–) also restores the sound.

Turning Off the Power with the Timer

Remote ONLY

You can fall asleep while listening to music — Sleep Timer.

Press SLEEP **on the remote control** repeatedly.
The SLEEP indicator lights up on the display, and the shut-off time changes in 10 minute intervals.



When the shut-off time comes
The receiver turns off automatically.

To check or change the time remaining until the shut-off time
Press SLEEP once.
The remaining time (in minutes) until the shut-off time appears.

- To change the shut-off time, press SLEEP repeatedly.

To cancel the Sleep Timer
Press SLEEP repeatedly until "SLEEP 0" appears on the display. (The SLEEP indicator goes off.)

- Turning off the power also cancels the Sleep Timer.

Basic adjustment auto memory

This receiver memorizes sound settings for each source ....

- when you turn on the power,
- when you change the source, and
- when you change the analog/digital input mode (see page 11).

When you change the source, the memorized settings for the newly selected source are automatically recalled.
The following can be stored for each source:

- Analog/digital input mode (see page 11)
- Input attenuator mode (see page 17)
- Balance (see page 17)
- Bass boost (see page 18)
- Tone adjustment (see page 19)
- Subwoofer output level (see page 19)
- Surround mode settings (see pages 25, 29)
  Theater Surround settings (see pages 27, 30)
  DAP mode settings (see pages 28, 31)

Note:

If the source is FM or AM, you can assign a different setting for each band.

For recording

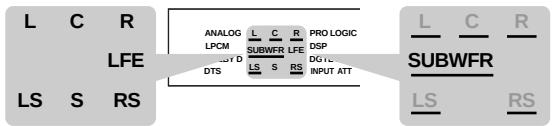
You can record sounds of any source playing through the receiver to the VCR connected to the VCR jacks.

While recording, you can listen to the selected sound source at whatever sound level you like without affecting the sound levels of the recording.

Note:

Sound adjustments (see page 17) and DSP modes (see page 22) cannot affect the recording.

Signal and speaker indicators on the display



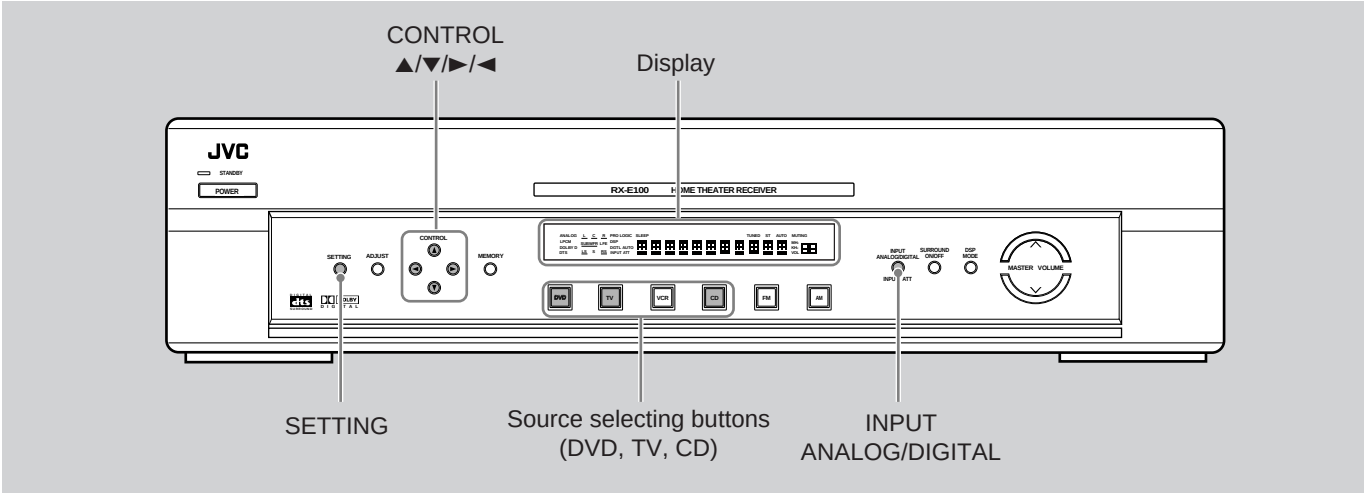
Signal indicators — Speaker indicators

The following signal indicators light up —:

L: • **When digital input is selected:** Lights up when the left channel signal comes in.
• **When analog input is selected:** Always lights up.
R: • **When digital input is selected:** Lights up when the right channel signal comes in.
• **When analog input is selected:** Always lights up.
C: Lights up when the center channel signal comes in.
LS: Lights up when the left rear channel signal comes in.
RS: Lights up when the right rear channel signal comes in.
S: Lights up when the monaural rear channel signal comes in.
LFE: Lights up when the LFE channel signal comes in.

The speaker indicators light up as follows:

- The subwoofer speaker indicator (SUBWFR) lights up when "SUBWFR" is set to "YES" (see page 12).
- The other speaker indicators light up only when the corresponding speaker is activated AND when the corresponding speaker is required for the DSP mode currently selected.



Setting the Digital Input Terminals

Remote NOT

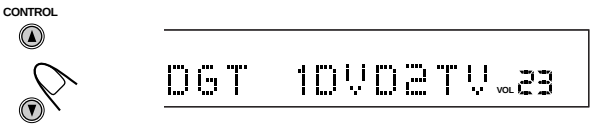
When you use the digital input terminals, register what components are connected to which terminals (DIGITAL IN 1/2) so that the correct source name will appear when you select the digital source.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

The CONTROL buttons now work for basic settings.

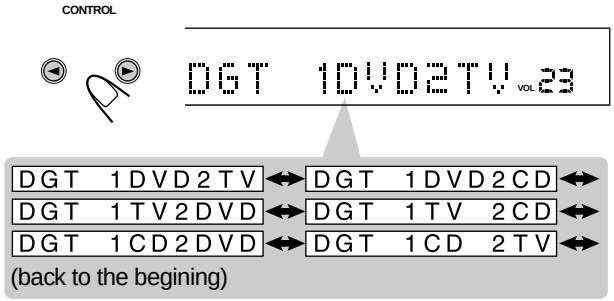
2 Press CONTROL ▼ (or ▲) repeatedly until "DGT (Digital)" (with the current setting)* appears on the display.



* "1DVD2TV" is the initial setting. If you have already changed the setting, another combination will be shown.

3 Press CONTROL ► (or ◄) to select the appropriate digital terminal setting.

- Each time you press the button, the display changes to show the following:



Note:

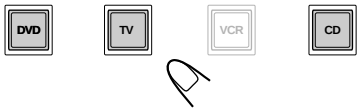
When shipped from the factory, the DIGITAL IN terminals have been set for use with the following components.

- *DIGITAL 1 (coaxial): For DVD player*
- *DIGITAL 2 (optical): For digital TV tuner*

Selecting the Analog or Digital Input Mode

When you have connected digital source components using both the analog connection and the digital connection methods (see page 6), you need to select the input mode correctly.

1 Press one of the source selecting buttons (DVD, TV, or CD)* for which you want to change the input mode.

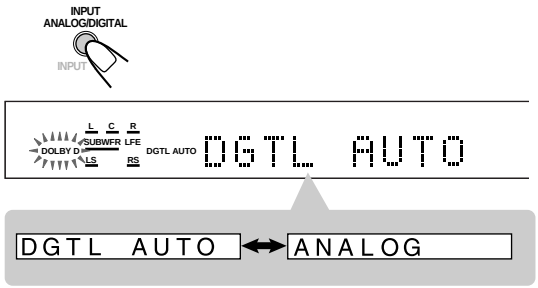


Note:

** Among the sources listed above, you can select the digital input only for the sources which you have selected the digital input terminals for. (See "Setting the Digital Input Terminals" on page 10.)*

2 Press INPUT ANALOG/DIGITAL (or INPUT A/D on the remote control) to select the analog or digital input mode.

- Each time you press the button, the input mode alternates between the analog input (ANALOG) and the digital input (DGTL AUTO).

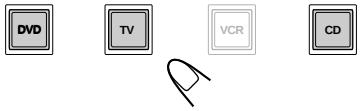


DGTL AUTO	: Select this for the digital input mode. The receiver automatically detects the incoming signal format. (The DGTL AUTO indicator lights up on the display, then the digital signal indicator for the detected signals lights up.)
ANALOG	: Select this for the analog input mode. (Initial setting when shipped from the factory)

If the following symptoms occur while playing Dolby Digital or DTS Digital Surround software with "DGTL AUTO" selected, follow the procedure below.

- Sound does not come out at the beginning of playback.
- Noise comes out while searching or skipping chapters or tracks.

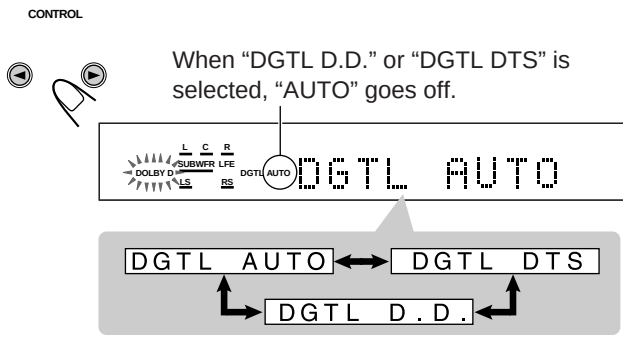
1 Press one of the source selecting buttons (DVD, TV, or CD) for which you want to change the input mode.



2 Press INPUT ANALOG/DIGITAL (or INPUT A/D) to select the digital input mode (DGTL AUTO).

3 Press CONTROL ► (or ◄) to select "DGTL D.D." or "DGTL DTS" while "DGTL AUTO" still remains on the display.

- Each time you press the button, the digital input mode changes as follows:



- To play back software encoded with Dolby Digital, select "DGTL D.D."
- To play back software encoded with DTS Digital Surround, select "DGTL DTS."

Note:

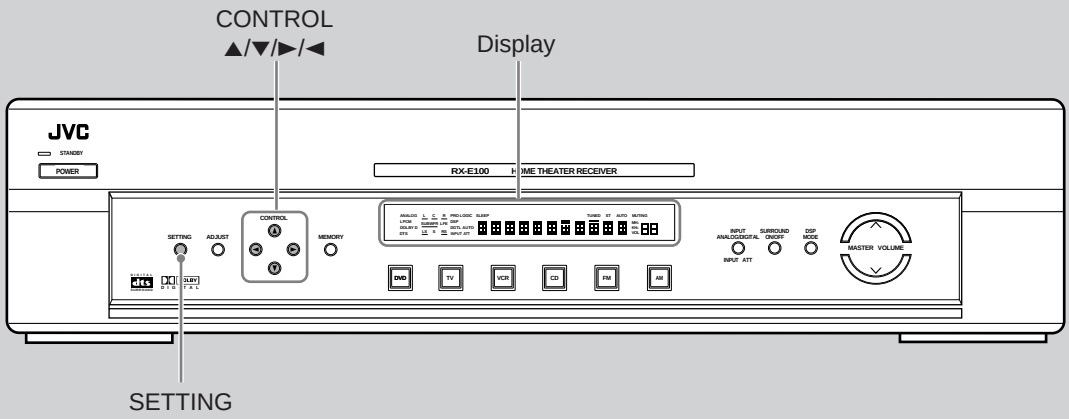
When you turn off the power or select another source, "DGTL DTS" and "DGTL D.D." are canceled and the digital input mode is automatically reset to "DGTL AUTO."

The following are the analog/digital signal indicators on the display to indicate what type of the signal comes into the receiver.

ANALOG	: Lights when the analog input is selected.
LPCM	: Lights when Linear PCM signals come in.
DOLBY D	: • Lights when Dolby Digital signals come in. • Flashes when "DGTL D.D." is selected for software not encoded with Dolby Digital.
DTS	: • Lights when DTS Digital Surround signals come in. • Flashes when "DGTL DTS" is selected for software not encoded with DTS Digital Surround.

Note:

When "DGTL AUTO" cannot recognize the incoming signals, no digital signal indicators light up on the display.



Setting the Subwoofer Information

Remote NOT

When you have connected a subwoofer, follow the procedure below. If you do not use a subwoofer, you can skip this setting.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

SETTING

The CONTROL buttons now work for basic settings.

2 Press CONTROL ▼ (or ▲) repeatedly until "SUBWFR (Subwoofer)" (with the current setting)* appears on the display.

CONTROL

SUBWFR : NO VOL 23

* "NO" is the initial setting. If you have already changed the setting, "YES" will be shown.

3 Press CONTROL ► (or ◄) to select "YES."

- Each time you press the button, the subwoofer setting alternates between "YES" and "NO."

CONTROL

SUBWFR : NO VOL 23

SUBWFR : NO ↔ SUBWFR : YES

YES	: Select this when a subwoofer is used. The subwoofer speaker indicator (SUBWFR) lights up on the display (see page 9). You can adjust the subwoofer output level (see page 19).
NO	: Select this when you have not connected or have disconnected a subwoofer.

Setting the Speakers for DSP Modes

Remote NOT

To obtain the best possible surround effect from the DSP (Digital Signal Processor) modes (see page 22), register the following information after all connections are completed.

- Speaker Size — FR SP, CTR SP, REAR SP
- Delay Time — CTR DL, REAR DL
- Crossover Frequency — CROSS
- Dynamic Range Compression — D.R.C.
- Low Frequency Effect Attenuator — LFE

Speaker Size — FR SP, CTR SP, REAR SP

Register the sizes of all the connected speakers.

- When you change your speakers, register the information about the speakers again.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

SETTING

The CONTROL buttons now work for basic settings.

2 Press CONTROL ▼ (or ▲) repeatedly until one of the following speakers (with the current setting)* appears.

CONTROL

FR SP:LRG VOL 23

FR SP : LRG ↔ CTR SP : SML

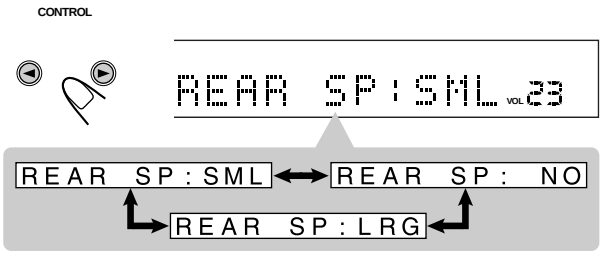
REAR SP : SML

FR SP (Front Speaker)	: To register the front speaker size.
CTR SP (Center Speaker)	: To register the center speaker size.
REAR SP (Rear Speaker)	: To register the rear speaker size.

* "LRG (large)" is the initial setting for the front speakers, and "SML (small)" is for the center and rear speakers.
If you have already changed the setting, another size will be shown.

3 Press CONTROL ► (or ◄) to select the appropriate speaker size.

- Each time you press the button, the speaker size changes as follows:



Ex.: When registering the rear speaker size

LRG (Large)	: Select this when the speaker size is relatively large. (See "Notes" below.)
SML (Small)	: Select this when the speaker size is relatively small. (See "Notes" below.)
NO	: Select this when you have not connected a speaker. (Not selectable for the front speakers)

4 Repeat steps 2 and 3 to select the appropriate size for the other speakers.

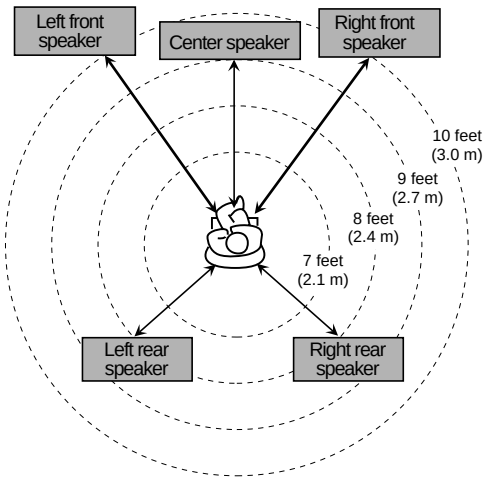
Notes:

- *Use the following criteria as reference when adjusting:*
  - *If the size of the cone speaker unit built in your speaker is greater than 4 3/4 inches (12 cm), select "LRG (large)," and if it is smaller than 4 3/4 inches (12 cm), select "SML (small)."*
- *If you have selected "NO" for the subwoofer, you can only select "LRG (large)" for the front speaker size.*
- *If you have selected "SML (small)" for the front speaker size, you cannot select "LRG (large)" for the center and rear speaker sizes.*

Delay Time — CTR DL, REAR DL

Adjust the delay time of the sounds from the center speaker and from the rear speakers, comparing to that of the sounds from the front speakers. If the distance to the center speaker and/or the rear speakers from your listening point is almost the same as that to the front speakers, select 0 msec.

- 1 msec increase (or decrease) in delay time corresponds to 1 foot (30 cm) increase (or decrease) in distance.



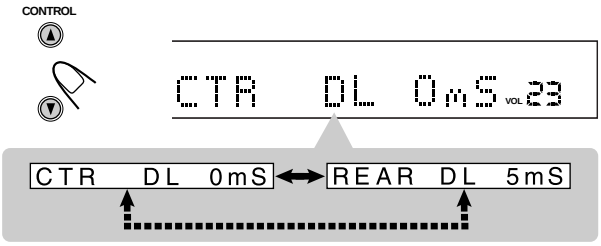
Ex.: In this case, set the center delay to "1 mS" and the rear delay to "2 mS."

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

The CONTROL buttons now work for basic settings.

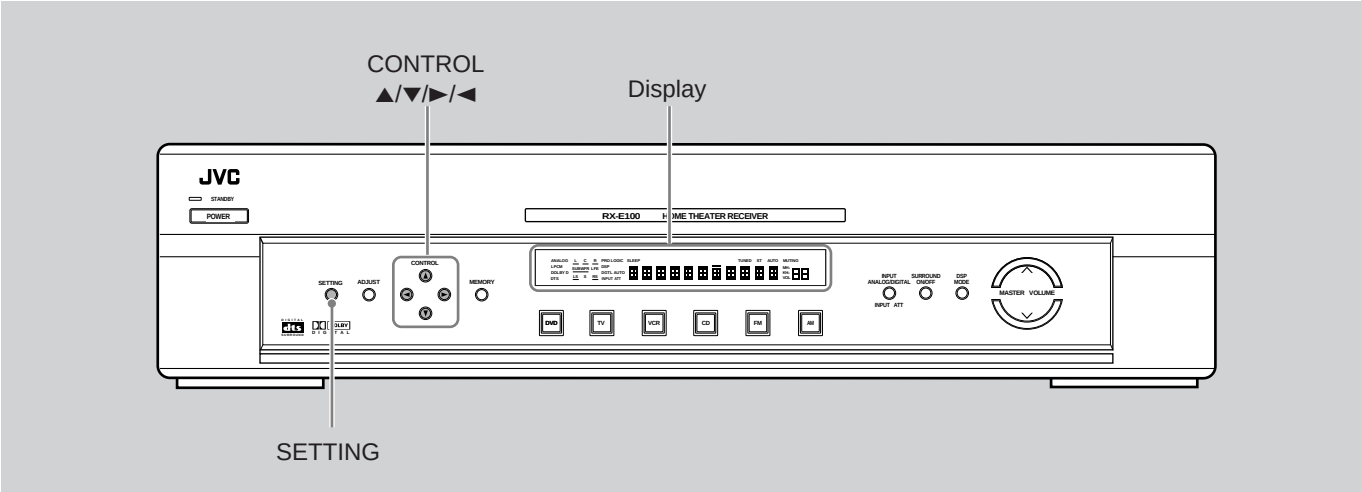
2 Press CONTROL ▼ (or ▲) repeatedly until "CTR DL (Center Delay)" or "REAR DL (Rear Delay" (with the current setting)* appears on the display.



CTR DL (Center Delay)	: To adjust the center delay time (from 0 msec to 5 msec).
REAR DL (Rear Delay)	: To adjust the rear delay time (from 0 msec to 15 msec).

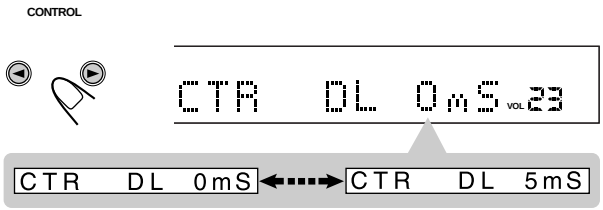
* "0 mS (msec)" is the initial setting for the center delay time and
"5 mS (msec)" for the rear delay time. If you have already changed the setting, another setting will be shown.

TO BE CONTINUED TO THE NEXT PAGE



3 Press CONTROL ► (or ◄) to select the delay time.

- Each time you press the button, the delay time changes by "1 mS (msec)."



Ex.: When adjusting the center delay

4 Repeat steps 2 and 3 to adjust the other delay time.

Crossover Frequency — CROSS

Small speakers cannot reproduce the bass sounds efficiently. If you use a small speaker in any position, this receiver automatically reallocates the bass sound elements assigned to the small speaker to large speakers.

To use this function properly, set this crossover frequency level according to the size of the small speaker connected.

- If you have selected "LRG (large)" for all speakers, this function will not take effect.

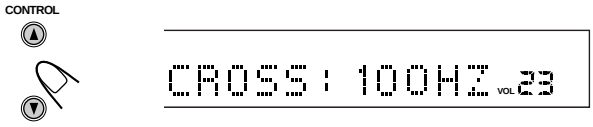
Before you start, remember...

There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

The CONTROL buttons now work for basic settings.

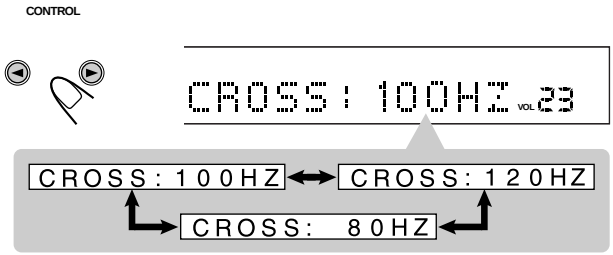
2 Press CONTROL ▼ (or ▲) repeatedly until "CROSS (Crossover)" (with the current setting)* appears on the display.



* "100HZ" is the initial setting. If you have already changed the setting, another frequency will be shown.

3 Press CONTROL ► (or ◄) to select the crossover frequency level.

- Each time you press the button, the crossover frequency level changes as follows:



- Use the following criteria as reference when adjusting:

80HZ:	Select this frequency when the cone speaker unit built in the speaker is about 4 3/4 inches (12 cm).
100HZ:	Select this frequency when the cone speaker unit built in the speaker is about 3 15/16 inches (10 cm).
120HZ:	Select this frequency when the cone speaker unit built in the speaker is about 3 3/16 inches (8 cm).

Dynamic Range Compression — D.R.C.

You can compress the dynamic range (difference between maximum sound and minimum sound) of the reproduced sound. This is useful when enjoying surround sound at night.

- This function takes effect only when playing back a source using Dolby Digital.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

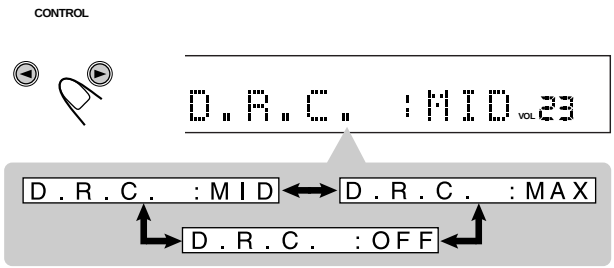
The CONTROL buttons now work for basic settings.

2 Press CONTROL▼ (or ▲) repeatedly until "D.R.C. (Dynamic Range Compression)" (with the current setting)* appears on the display.

* "MID" is the initial setting. If you have already changed the setting, another setting will be shown.

3 Press CONTROL ► (or ◄) to select the appropriate compression level.

- Each time you press the button, the compression level changes as follows:



OFF	: Select this when you want to enjoy surround with its full dynamic range. (No effect applied.)
MID	: Select this when you want to reduce the dynamic range a little.
MAX	: Select this when you want to apply the compression effect fully. (Useful at night.)

Low Frequency Effect Attenuator — LFE

If the bass sound is distorted while playing back software using Dolby Digital or DTS Digital Surround, follow the procedure below.

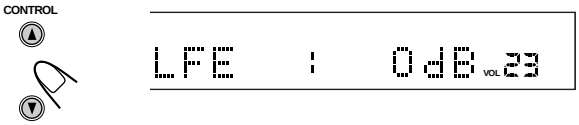
- This function takes effect only when the subwoofer (LFE) signals come in, (with "SUBWFR" set to "YES").

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

The CONTROL buttons now work for basic settings.

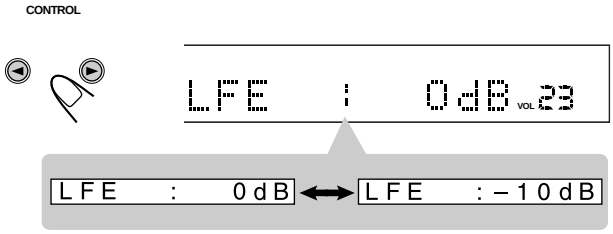
2 Press CONTROL ▼ (or ▲) repeatedly until "LFE (Low Frequency Effect)" (with the current setting)* appears on the display.



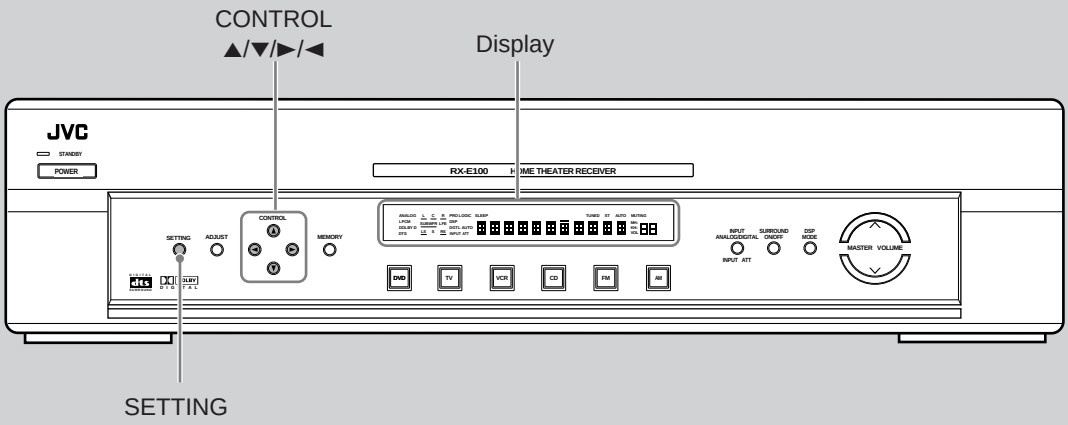
* "0" is the initial setting. If you have already changed the setting, "–10dB" will be shown.

3 Press CONTROL ► (or ◄) to select the LFE attenuator level.

- Each time you press the button, the LFE attenuator level changes as follows:



0dB	: Normally select this.
–10dB	: Select this when the bass sound is distorted.



Setting Auto Surround

Remote NOT

Surround mode is automatically activated when a multichannel digital signal comes into this receiver through the digital terminal. You can enjoy Surround mode simply by selecting the source (with digital input selected for that source) — Auto Surround.

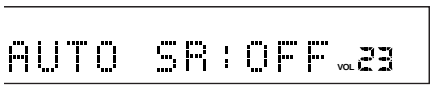
To activate Auto Surround, follow the procedure below.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press SETTING.

The CONTROL buttons now work for basic settings.

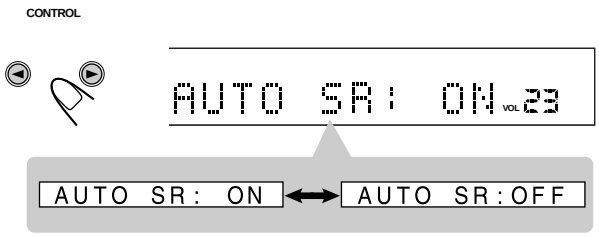
2 Press CONTROL ▼ (or ▲) repeatedly until "AUTO SR (Auto Surround)" (with the current setting)* appears on the display.



* "OFF" is the initial setting. If you have already changed the setting, "ON" will be shown.

3 Press CONTROL ► (or ◄) to select "ON."

- Each time you press the button, Auto Surround turns "ON" or "OFF."



ON	: • If multichannel signals come in, an appropriate Surround mode will be turned on • If Dolby Digital 2 channel or DTS 2 channel signals come in, "STEREO" will be selected. • If linear PCM signals come in, nothing will change.
OFF	: Select this to deactivate Auto Surround.

Notes:

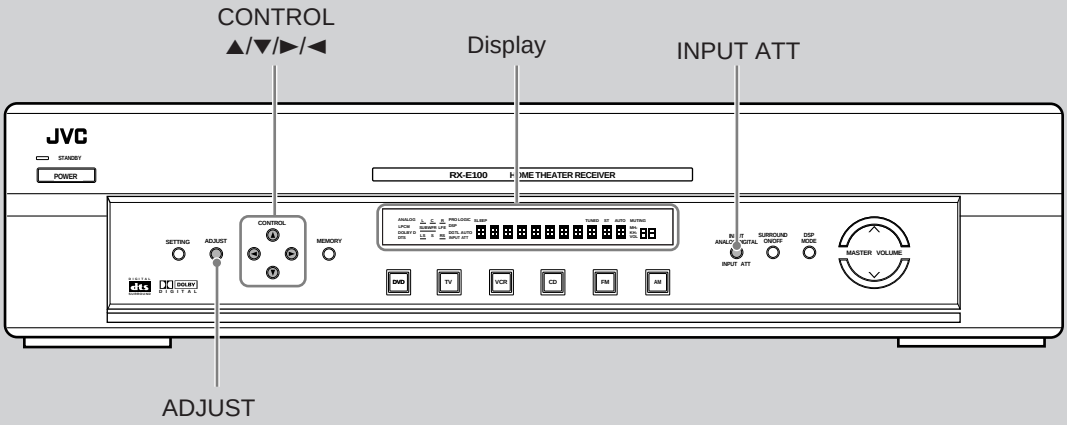
- *This function does not take effect in the following cases:*
  - *– While playing an analog source.*
  - *– While selecting "DGTL DTS" or "DGTL D.D." as the fixed digital input mode (see page 11).*
- *If Surround mode is automatically activated by Auto Surround, another DSP mode in use will be canceled temporarily. When multichannel digital signals stop coming in, the selected surround mode is canceled, and the previous DSP mode resumes.*
- *If you press SURROUND ON/OFF (SURROUND on the remote control) or DSP MODE with Auto Surround activated, Auto Surround will be canceled temporarily for the currently selected source.*
  Auto Surround setting will be restored in the following cases.
  - *– When you turn off and on the unit,*
  - *– When you change the source, and*
  - *– When you reset "AUTO SR" to "ON" again.*

To cancel Auto Surround

Repeat step 1 and 2, then select "OFF" in step 3.

Sound Adjustments

You can also use the remote control for some sound adjustments.
- When using the remote control, see also "Mastering Remote Operations" on page 32.

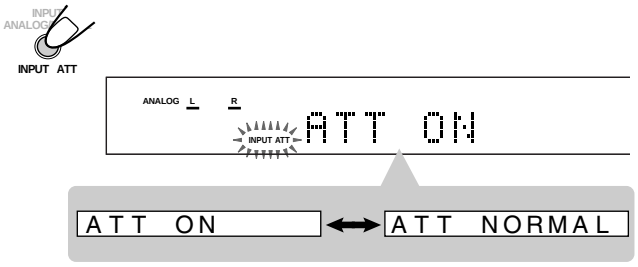


Attenuating the Input Signal

Remote NOT

When the input level of the **analog source** is too high, the sounds will be distorted. If this happens, you need to attenuate the input signal level to prevent the sound distortion.
- You have to make this adjustment for each **analog source**.

Press and hold INPUT ATT (INPUT ANALOG/DIGITAL) so that the INPUT ATT indicator lights up on the display.
- Each time you press and hold the button, the Input Attenuator turns on ("ATT ON") or off ("ATT NORMAL").



Adjusting the Front Speaker Output Balance

Remote NOT

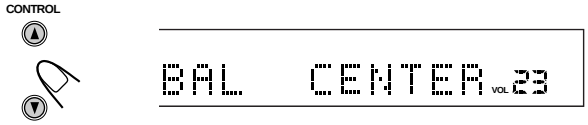
If the sounds you hear from the front right and left speakers are unequal, you can adjust the speaker output balance.
- You have to make this adjustment for each source.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press ADJUST.

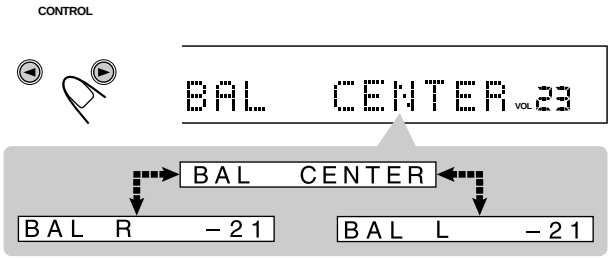
The CONTROL buttons now work for sound adjustments.

2 Press CONTROL ▼ (or ▲) repeatedly until "BAL (Balance)" (with the current setting)* appears on the display.

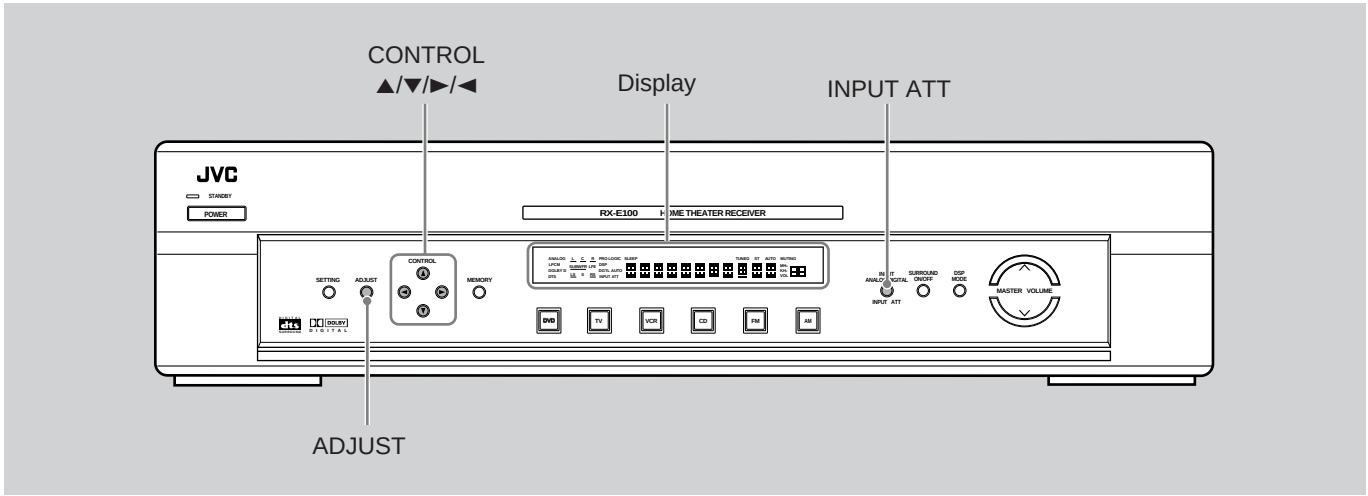


* "CENTER" is the initial setting. If you have already changed the setting, another setting will be shown.

3 Press CONTROL ► or ◄ to adjust the front speaker balance.



- Pressing CONTROL ► decreases the left channel output (from CENTER to L–21).
- Pressing CONTROL ◄ decreases the right channel output (from CENTER to R–21).



Reinforcing the Bass

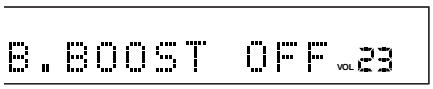
You can boost the bass level — Bass Boost.
• You have to make this adjustment for each source.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press ADJUST.

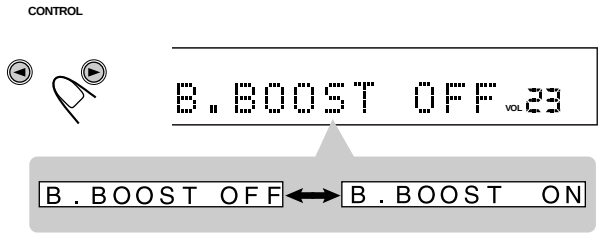
The CONTROL buttons now work for sound adjustments.

2 Press CONTROL ▼ (or ▲) repeatedly until "B. BOOST (Bass Boost)" (with the current setting)* appears on the display.



* "OFF" is the initial setting. If you have already changed the setting, "ON" will be shown.

3 Press CONTROL ► (or ◄) to turn "ON" or "OFF" Bass Boost.



ON	: Select this to boost the bass level. (Bass Boost)
OFF	: Select this to deactivate Bass Boost.

Note:

This function affects the sound outputting only through the front speakers.

When using the remote control

1 Press SOUND.
10 keys now work for sound adjustments.
2 Press BASS BOOST.
• Each time you press the button, Bass Boost turns on and off alternately.

Adjusting the Tone

Remote NOT

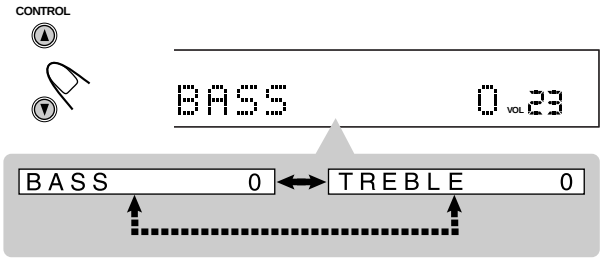
You can adjust the bass and treble sounds as you like.
• You have to make these adjustments for each source.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Press ADJUST.

The CONTROL buttons now work for sound adjustments.

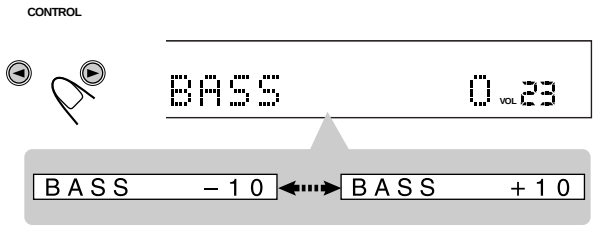
2 Press CONTROL ▼ (or ▲) repeatedly until "BASS" or "TREBLE" (with the current setting)* appears.



BASS	: To adjust the bass.
TREBLE	: To adjust the treble.

* "0" is the initial setting. If you have already changed the setting, another number (level) will be shown.

3 Press CONTROL ► or ◄ to adjust the sound level.



Ex.: When adjusting the bass level

- Pressing CONTROL ► increases the sound level by +2 steps (from –10 to +10).
- Pressing CONTROL ◄ decreases the sound level by –2 steps (from +10 to –10).

4 Repeat steps 2 and 3 to adjust the other sound level.

Adjusting the Subwoofer Output Level

You can adjust the subwoofer output level if you have connected a subwoofer and set the subwoofer information correctly – "YES."
• You have to make this adjustment for each source.

Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

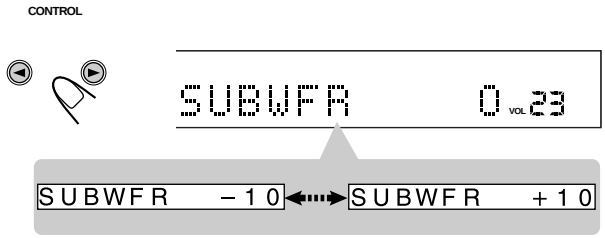
1 Press ADJUST.

The CONTROL buttons now work for sound adjustments.

2 Press CONTROL ▼ (or ▲) repeatedly until "SUBWFR (subwoofer)" (with the current setting)* appears.

* "0" is the initial setting. If you have already changed the setting, another number (level) will be shown.

3 Press CONTROL ► or ◄ to adjust the sound output level.



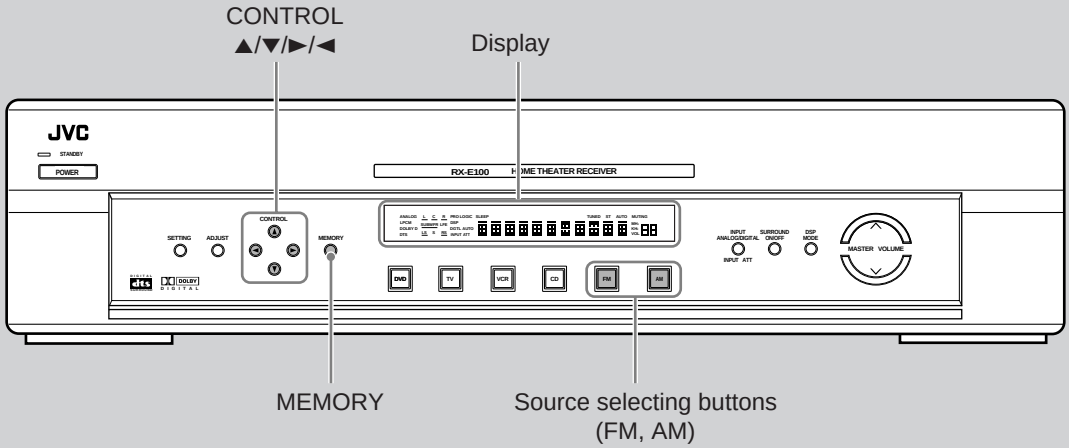
- Pressing CONTROL ► increases the sound output level (from –10 to +10).
- Pressing CONTROL ◄ decreases the sound output level (from +10 to –10).

When using the remote control

1 Press SOUND.
10 keys now work for sound adjustments.
2 Press SUBWOOFER +/– to adjust the sound output level (from –10 to +10).

Tuner Operations

You can also use the remote control for some tuner operations.
- When using the remote control, see also "Mastering Remote Operations" on page 32.

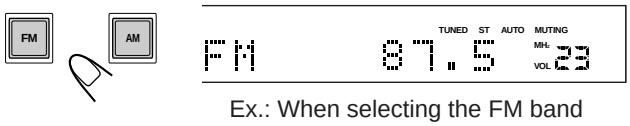


Tuning in Stations Manually

Remote NOT

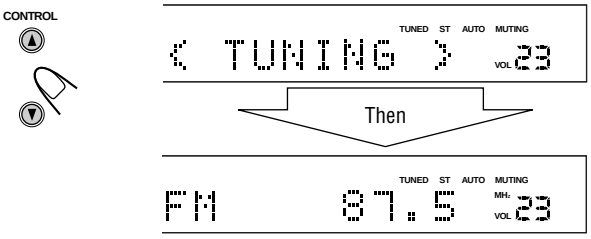
1 Press FM or AM to select the band.

The last received station of the selected band is tuned in, and the CONTROL buttons now work for tuner operations.

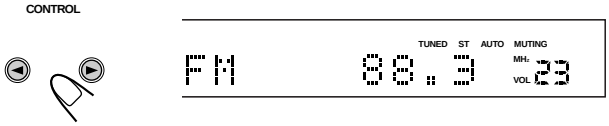


Ex.: When selecting the FM band

2 Press CONTROL ▼ (or ▲) repeatedly until "< TUNING >" appears on the display.



3 Press repeatedly or hold CONTROL ► or ◄ until you find the frequency you want.



- Pressing (or holding) CONTROL ► increases the frequencies.
- Pressing (or holding) CONTROL ◄ decreases the frequencies.

Notes:

- *When you hold and release CONTROL ► or CONTROL ◄, the frequency keeps changing until a station is tuned in.*
- *When a station of sufficient signal strength is tuned in, the TUNED indicator lights up on the display.*
- *When an FM stereo program is received, the ST (Stereo) indicator also lights up.*

Using Preset Tuning

Once a station is assigned to a channel number, the station can be quickly tuned. You can preset up to 30 FM and 15 AM stations.

To store the preset stations

Remote NOT

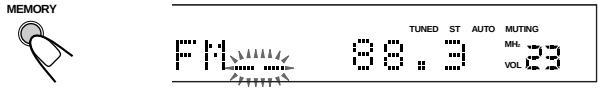
Before you start, remember...
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 Tune in the station you want to preset (see "Tuning in Stations Manually").

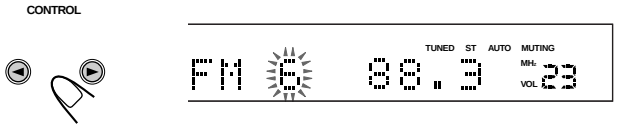
- If you want to store the FM reception mode for this station, select the FM reception mode you want. See "Selecting the FM Reception Mode" on page 21.

2 Press MEMORY.

The channel number position starts flashing on the display for about 10 seconds.

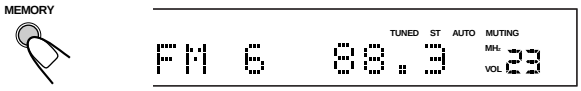


3 Press CONTROL ► (or ◄) to select a channel number while the channel number position is flashing.



4 Press MEMORY again while the selected channel number is flashing on the display.

The selected channel number stops flashing.
The station is assigned to the selected channel number.



5 Repeat steps 1 to 4 until you store all the stations you want.

To erase a stored preset station

Storing a new station on a used channel number erases the previously stored one.

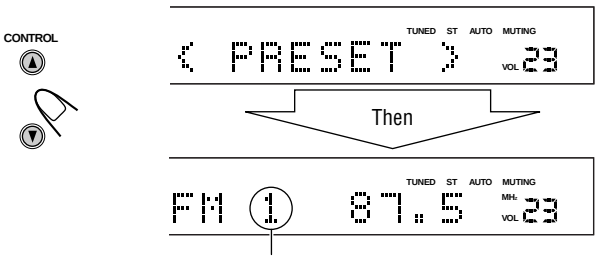
To tune in a preset station

1 Press FM or AM to select the band.

The last received station of the selected band is tuned in, and the CONTROL buttons now work for tuner operations.

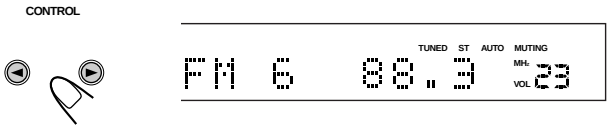
Ex.: When selecting the FM band

2 Press CONTROL ▼ (or ▲) repeatedly until "< PRESET >" appears on the display.



Preset channel number appears.

3 Press CONTROL ► or ◄ to select a preset channel number you want.



- Pressing (or holding) CONTROL ► increases the preset channel numbers.
- Pressing (or holding) CONTROL ◄ decreases the preset channel numbers.

When using the remote control

1 Press FM or AM.
The last received station of the selected band is tuned in, and the 10 keys now work for tuner operations.

2 Press the 10 keys to select a preset channel number.
- For channel number 5, press 5.
- For channel number 15, press +10 then 5.
- For channel number 30, press +10, +10, then 10.

Selecting the FM Reception Mode

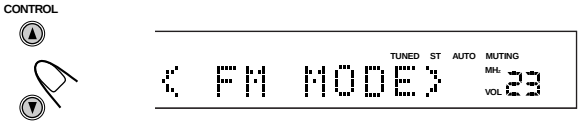
Remote NOT

When an FM stereo broadcast is hard to receive or noisy, you can change the FM reception mode while receiving an FM broadcast.
- You can store the FM reception mode for each preset station.

Before you start, remember...

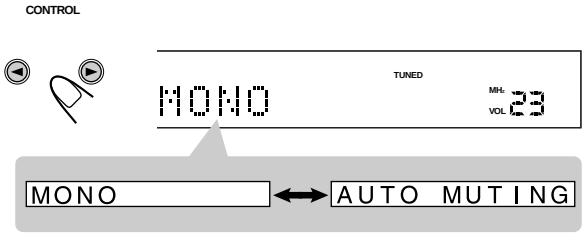
There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

1 While listening to an FM station, press CONTROL ▼ (or ▲) repeatedly until "<FM MODE>" appears on the display.



2 Press CONTROL ► (or ◄) to select "MONO."

- Each time you press the button, the FM reception mode alternates between "AUTO MUTING" and "MONO."



* "AUTO MUTING" is the initial setting.

MONO	: Select this to improve the reception (but stereo effect will be lost). In this mode, you will hear noise while tuning into the stations. The AUTO MUTING indicator goes off from the display. (The ST indicator also goes off.)
AUTO MUTING	: Normally select this. When a program is broadcasted in stereo, you will hear stereo sound; when in monaural, you will hear monaural sounds. This mode is also useful to suppress static noise between stations. The AUTO MUTING indicator lights up on the display.

To restore the stereo effect

Repeat step 1, then select "AUTO MUTING" in step 2.

Creating Realistic Sound Fields

You can use the following DSP (Digital Signal Processor) modes to reproduce a realistic sound field.
- Surround modes
- DAP modes

■ Surround modes

Surround modes cannot be used when only the front speakers are connected to this receiver (without the rear speakers or center speaker).

Dolby Surround (Dolby Pro Logic)*

Used to reproduce sound tracks of the software encoded with Dolby Surround (DOLBY SURROUND).

Dolby Surround encoding format records the left front channel, right front channel, center channel, and rear channel signals (total 4 channels) into 2 channels.
The **Dolby Pro Logic** decoder built in this receiver decodes these 2 channel signals into original 4 channel signals — matrix-based multichannel reproduction, and allows you to enjoy a realistic stereo sound in your listening room.
- When Dolby Pro Logic is activated, the PRO LOGIC indicator lights up on the display.
  – Dolby Pro Logic will be activated for all 2 channel-encoded software.

Dolby Digital*

Used to reproduce multichannel sound tracks of the software encoded with Dolby Digital (DOLBY DIGITAL).
- To enjoy the software encoded with Dolby Digital, connect the source component using the digital terminal on the rear of this receiver. (See page 6.)

Dolby Digital encoding method (so-called discrete 5.1 channel digital audio format) records and digitally compresses the left front channel, right front channel, center channel, left rear channel, right rear channel, and LFE channel signals (total 6 channels, but LFE channel is counted as 0.1 channel. Therefore, called 5.1 channel). Since each channel is completely independent from the other channel signals to avoid interference, you can obtain much better sound quality with much stereo and surround effects.
In addition, Dolby Digital enables stereo rear sounds, and sets the cutoff frequency of the rear treble at 20 kHz, compared to 7 kHz for Dolby Pro Logic. These facts enhance the sound movement and being-there feelings much more than Dolby Pro Logic.

DTS Digital Surround**

Used to reproduce multichannel sound tracks of the software encoded with DTS Digital Surround (dts DIGITAL SURROUND).
- To enjoy the software encoded with DTS Digital Surround, connect the source component using the digital terminal on the rear of this receiver. (See page 6.)

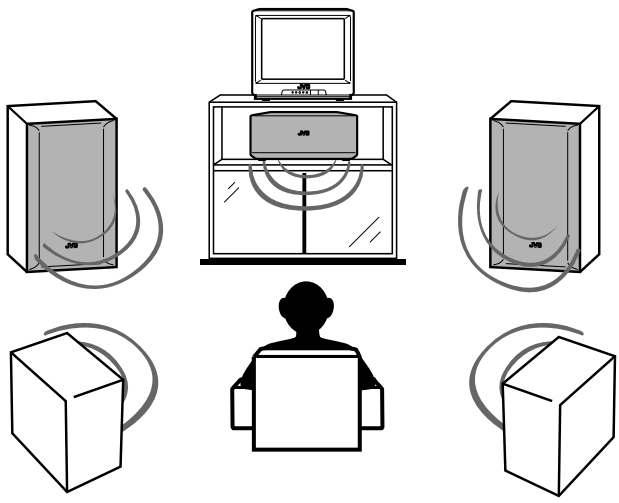
DTS Digital Surround is another discrete 5.1 channel digital audio format available on CD, LD, and DVD software.
Compared to Dolby Digital, audio compression rate is relatively low. This fact allows DTS Digital Surround format to add breadth and depth to the reproduced sounds. As a result, DTS Digital Surround features natural, solid and clear sound.

JVC Theater Surround

Used to reproduce sound tracks of the software encoded with Dolby Surround (DOLBY SURROUND).
- **Theater Surround cannot be used only when the front speakers and rear speakers are connected to this receiver (without respect to the center speaker connection).**

Theater Surround can add acoustic surround effects (DAP mode effects) to Dolby Surround software, and create a sound field of a theater in your listening room.
- When Theater Surround is selected, the PRO LOGIC and DSP indicators light up on the display.

Surround reproduction



* *Manufactured under license from Dolby Laboratories. "Dolby," "Pro Logic," and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. ©1992–1997 Dolby Laboratories, Inc. All rights reserved.*

** *Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942 and other world-wide patents issued and pending. "DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc. ©1996 Digital Theater Systems, Inc. All rights reserved.*

■ DAP (Digital Acoustic Processor) Modes

DAP modes have been designed to create important acoustic surround elements.

The sound heard in a hall, live club, dance club or pavilion consists of direct sound and indirect sound — early reflections and reflections from behind. Direct sounds reach the listener directly without any reflection. On the other hand, indirect sounds are delayed by the distances of the ceiling and walls (see the diagram to the right).
These indirect sounds are important elements of the acoustic surround effects.

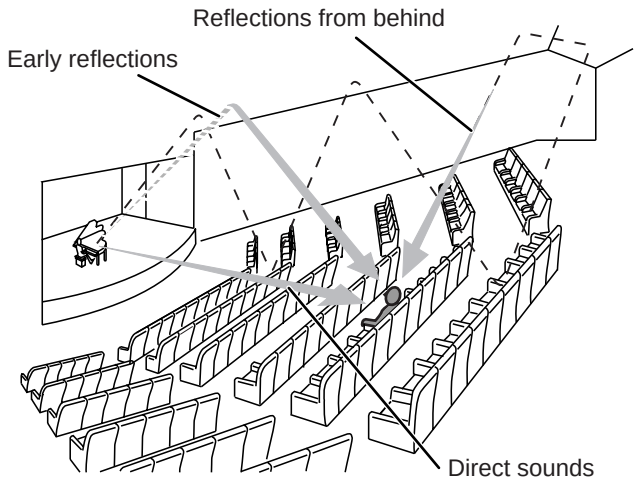
The following DAP modes are provided with this receiver.

LIVE CLUB	: Gives the feeling of a live music club with a low ceiling.
DANCE CLUB	: Gives a throbbing bass beat.
HALL	: Gives clear vocal and the feeling of a concert hall.
PAVILION	: Gives the spacious feeling of a pavilion with a high ceiling.

These DAP modes can be used to add the acoustic surround effects while reproducing stereo analog software or Linear PCM digital software, and can give you a real “being there” feeling.

- **DAP modes can be used when the front and rear speakers are connected to this receiver (without respect to the center speaker connection: no sound comes out of the center speaker if it is connected).**
- When one of the DAP modes is selected, the DSP indicator lights up on the display.

Creating sound field



Available DSP modes according to the input signal format

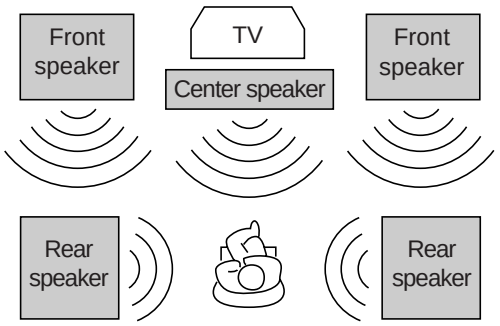
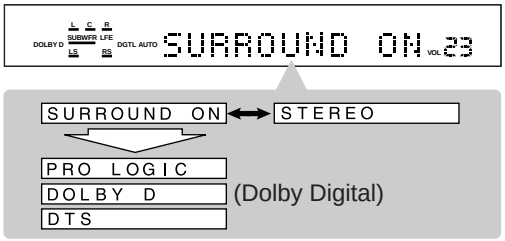
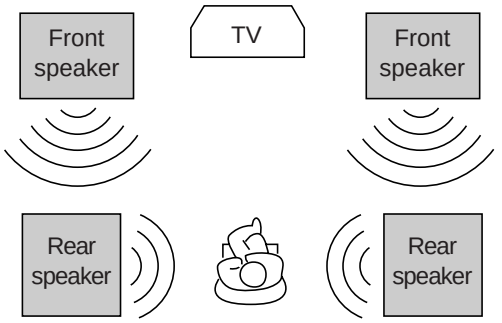
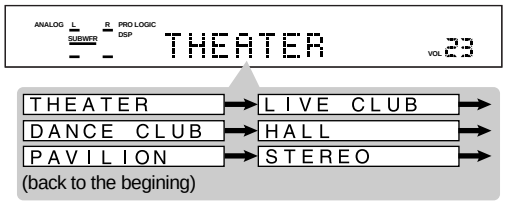
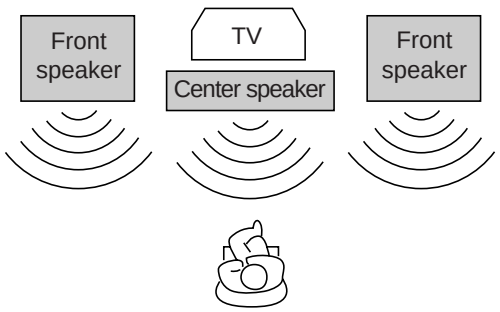
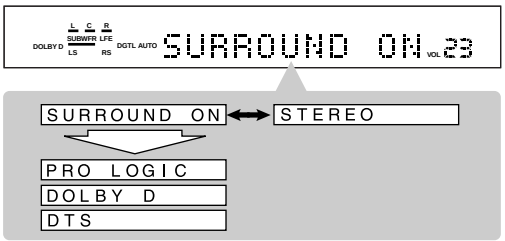
○: Possible ×: Impossible

DSP Modes		SURROUND	THEATER	LIVE CLUB	DANCE CLUB	HALL	PAVILION	STEREO
Input Signal format	Analog	○ (Dolby Pro Logic)	○	○	○	○	○	○
	Linear PCM	○ (Dolby Pro Logic)	○	○	○	○	○	○
	Dolby Digital	○ *1 (Dolby Digital)	×	×	×	×	×	○
	DTS	○ *2 (DTS Digital Surround)	×	×	×	×	×	○

*1 Dolby Digital is activated except when 2 channel signals come in (in this case, Dolby Pro Logic is activated).
*2 DTS Digital Surround is activated except when 2 channel signals come in (in this case, Dolby Pro Logic is activated).

About Relations between Speaker Layout and DSP Modes

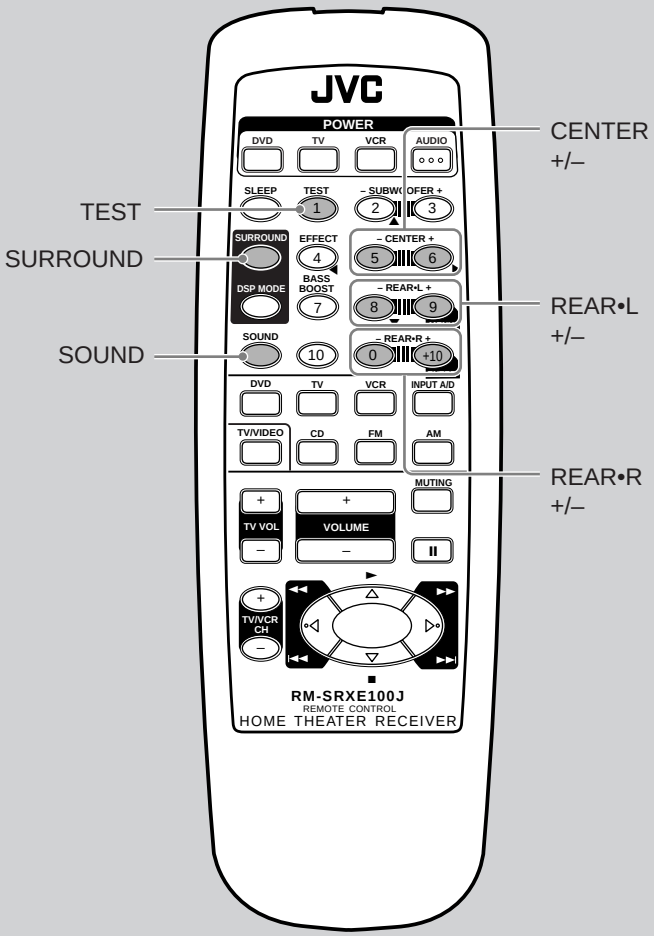
Available DSP modes will vary depending on how many speakers are used with this receiver.
Make sure that you have set the speaker information correctly (see page 12).
- **If only front speakers are connected, you cannot use the DSP modes.**
- **If rear speakers are not connected, you cannot use Theater Surround and DAP modes.**

Speaker Layouts	Available DSP modes
5 Channels 	**Surround mode** Each time you press SURROUND or SURROUND ON/OFF, Surround mode turns on or off (“STEREO”):  (Remote)  (Front panel) 
4 Channels 	**DSP mode** Each time you press DSP MODE, the DSP modes (Theater Surround and DAP modes) change as follows:  (Remote)  (Front panel) 
3 Channels 	**Surround mode** Each time you press SURROUND or SURROUND ON/OFF, Surround mode turns on or off (“STEREO”):  (Remote)  (Front panel) 

When “AUTO SR (Auto Surround)” is turned “ON”
Surround mode is automatically activated when you select and start playing back a multichannel digital source.

It will be convenient for you to use the remote control for DSP operations, since you can adjust them from your listening point, and use the test signal.

• When using the buttons on the front panel, see pages 29 to 31.



IMPORTANT

To view the pictures on the TV, connect the video components directly to the TV, and select an appropriate input on the TV.

Before you start, remember...

- **Make sure that you have set the speaker information correctly (see page 12).**
- You cannot adjust the center speaker output level when you have set "CTR SP" to "NO."
- You cannot adjust the rear speaker output levels when you have set "REAR SP" to "NO."
- Remember not to change the speaker setting while using any DSP mode; otherwise, it may be canceled when you deactivate the speakers required for the DSP mode.

Using Surround Modes (Remote Control)

Surround mode cannot be used with another DSP mode. Once Surround mode is activated, the other DSP mode in use will be canceled.

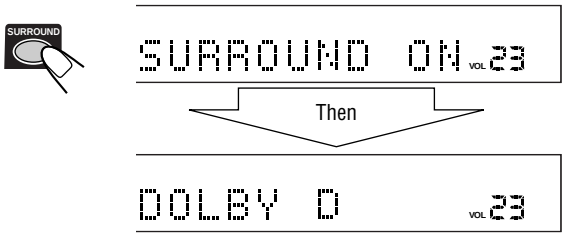
• You have to make this adjustment for each source.

1 Select and play software encoded with Dolby Surround, Dolby Digital, or DTS Digital Surround.

If "AUTO SR (Auto Surround)" is set to "ON"
Playing a digital source automatically activates an appropriate Surround mode. (See page 16.)

2 Press SURROUND to activate an appropriate Surround mode — Pro Logic, Dolby Digital, or DTS Digital Surround.

• Each time you press the button, Surround mode turns on and off alternately.



Ex.: When Dolby Digital is activated

Note:

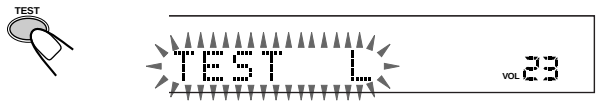
When playing back an analog source, "SURROUND ON" will not appear, and "PRO LOGIC" appears as soon as you press SURROUND. (The PRO LOGIC indicator also lights up on the display.)

3 Press SOUND.

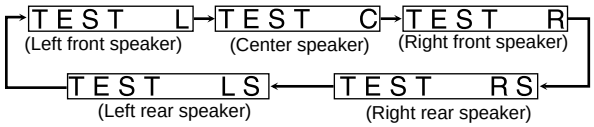
The 10 keys now work for sound adjustments.

TO BE CONTINUED ON THE NEXT PAGE

4 Press TEST to check the speaker output balance.



"TEST L" starts flashing on the display, and a test tone comes out of the speakers in the following order:



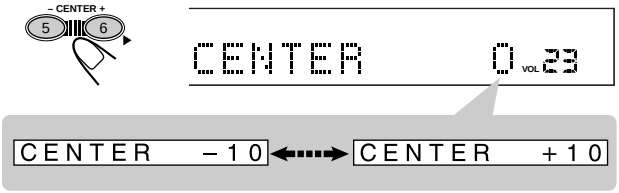
Notes:

- *You can adjust the speaker output levels without outputting the test tone.*
- *No test tone comes out of the center speaker when "CTR SP" is set to "NO."*
- *No test tone comes out of the rear speakers when "REAR SP" is set to "NO."*

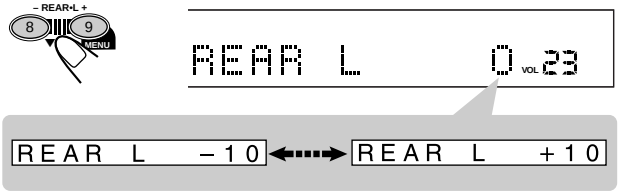
5 Adjust the following speaker output levels (from –10 to +10).

- Make adjustments so that the sound level of the selected speaker is set at the same level as that of the front speakers.

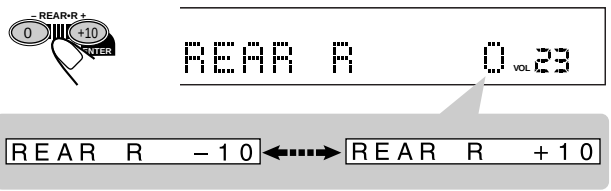
To adjust the center speaker level, press CENTER +/–.



To adjust the left rear speaker level, press REAR•L +/–.



To adjust the right rear speaker level, press REAR•R +/–.

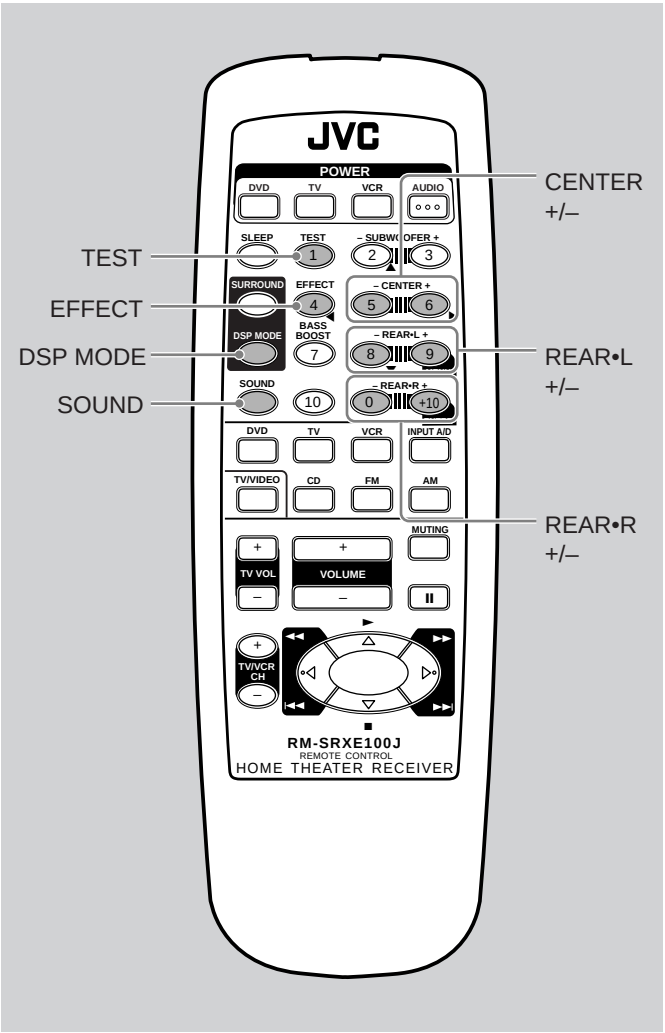


6 Press TEST again to stop the test tone.

To cancel Surround Mode

Press SURROUND again so that "STEREO" appears on the display.

- If Surround mode is canceled while playing back multichannel digital software, all channel signals are mixed and output through the front speakers (and subwoofer if you have connected a subwoofer and set the subwoofer setting correctly – "YES.")



Using Theater Surround (Remote Control)

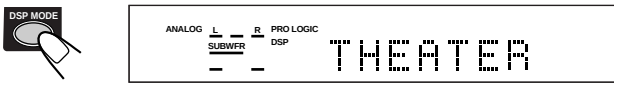
Theater Surround cannot be used with another DSP mode. Once Theater Surround is activated, the other DSP mode in use will be canceled.

- You have to make this adjustment for each source.
- You cannot use Theater Surround if no rear speakers are connected.

1 Select and play software encoded with Dolby Surround.

2 Press DSP MODE repeatedly until "THEATER" appears on the display.

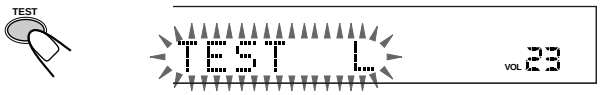
The PRO LOGIC and DSP indicator light up on the display.



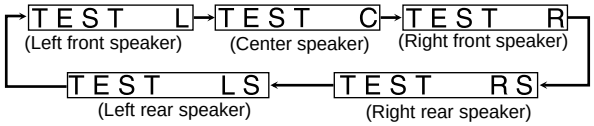
3 Press SOUND.

The 10 keys now work for sound adjustments.

4 Press TEST to check the speaker output balance.



"TEST L" starts flashing on the display, and a test tone comes out of the speakers in the following order:



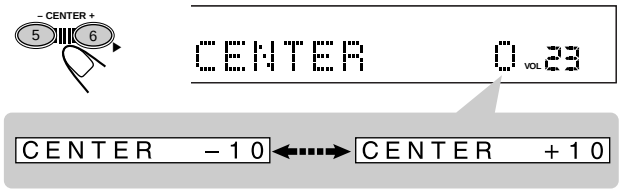
Notes:

- *You can adjust the speaker output levels without outputting the test tone.*
- *No test tone comes out of the center speaker when "CTR SP" is set to "NO."*

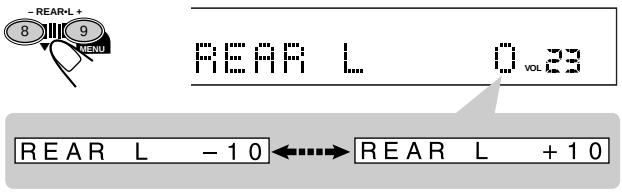
5 Adjust the following speaker output levels (from –10 to +10).

- Make adjustments so that the sound level of the selected speaker is set at the same level as that of the front speakers.

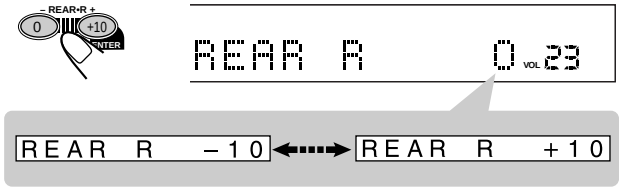
To adjust the center speaker level, press CENTER +/–.



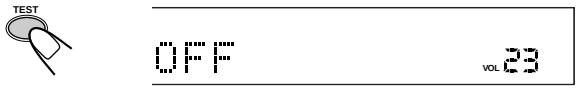
To adjust the left rear speaker level, press REAR•L +/–.



To adjust the right rear speaker level, press REAR•R +/–.

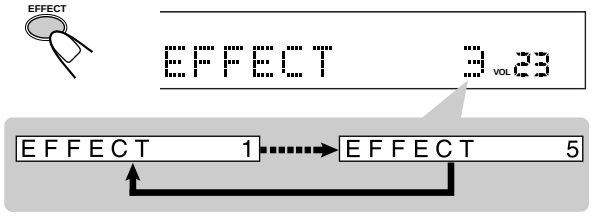


6 Press TEST again to stop the test tone.



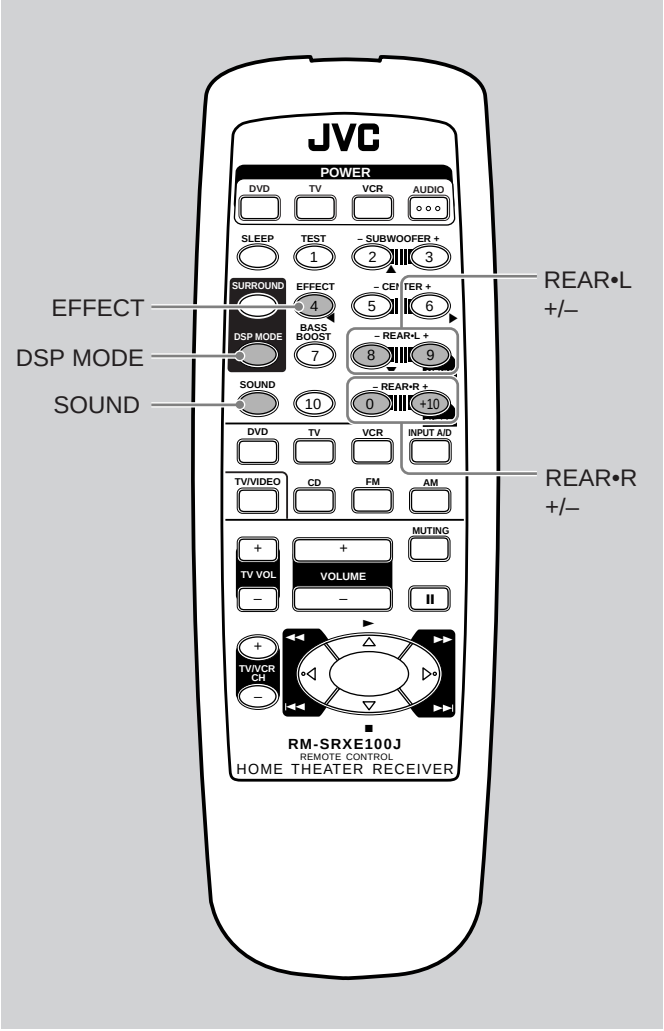
7 Press EFFECT to select the DSP effect level (1 to 5) you want.

- As the number increases, the DSP effect becomes stronger (normally set it to "EFFECT 3").



To cancel Theater Surround

Press DSP MODE repeatedly until "STEREO" appears on the display. The PRO LOGIC and DSP indicators go off.



Using DAP Modes (Remote Control)

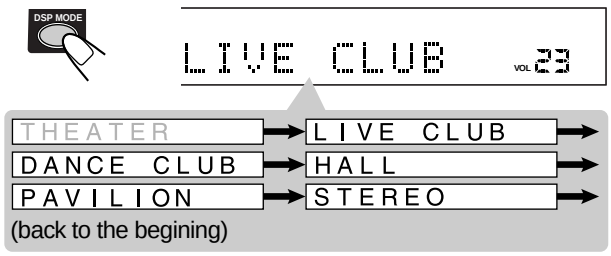
A DAP mode cannot be used with another DSP mode. Once one of the DAP modes is activated, the other DSP mode in use will be canceled.

- You have to make this adjustment for each source.
- You cannot use any DAP mode if no rear speakers are connected.

1 Select and play stereo analog software or Linear PCM digital software.

2 Press DSP MODE repeatedly until one of the DAP modes appears on the display.

The DSP indicator lights up on the display.



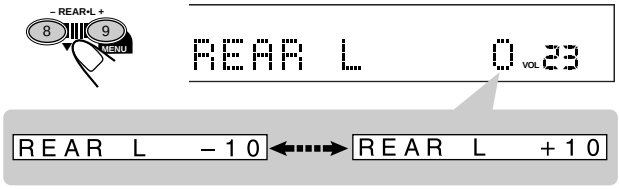
3 Press SOUND.

The 10 keys now work for sound adjustments.

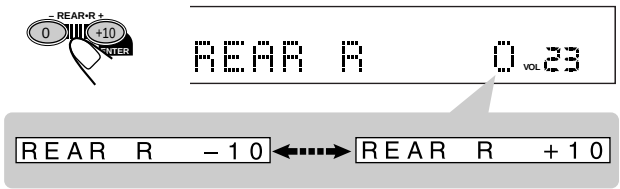
4 Adjust the rear speaker output levels (from –10 to +10).

- Make adjustments so that the sound level of the selected speaker is set at the same level as that of the front speakers.

To adjust the left rear speaker level, press REAR•L +/–.

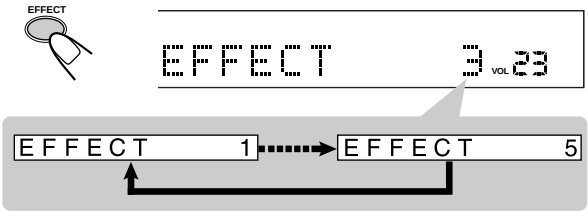


To adjust the right rear speaker level, press REAR•R +/–.



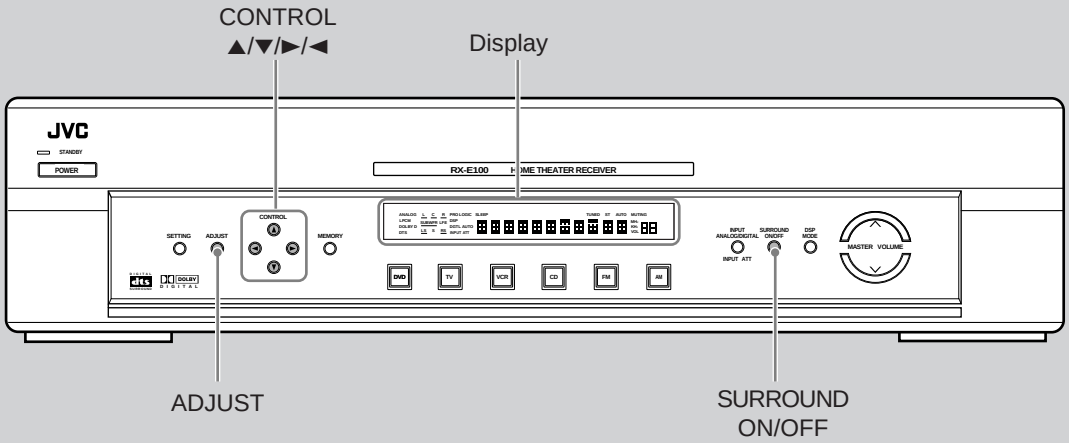
5 Press EFFECT to select the DSP effect level (1 to 5) you want.

- As the number increases, the DSP effect becomes stronger (normally set it to “EFFECT 3”).



To cancel DAP Mode

Press DSP MODE repeatedly so that “STEREO” appears on the display. The DSP indicator goes off.



IMPORTANT

To view the pictures on the TV, connect the video components directly to the TV, and select an appropriate input on the TV.

When using the remote control for DSP operations, see pages 25 to 28.

Before you start, remember...

- **Make sure that you have set the speaker information correctly (see page 12).**
- You cannot adjust the center speaker output level when you have set "CTR SP" to "NO."
- You cannot adjust the rear speaker output levels when you have set "REAR SP" to "NO."

Using Surround Modes (Front Panel)

Surround mode cannot be used with another DSP mode. Once Surround mode is activated, the other DSP mode in use will be canceled.
When using the buttons on the front panel, no test tone is available. Make adjustments while listening to the sound of the source played back.

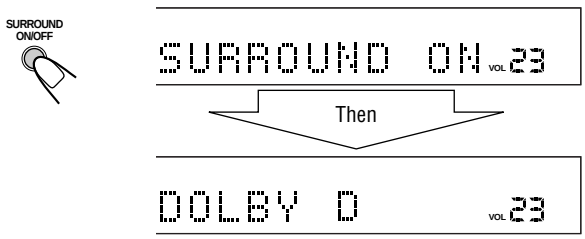
- You have to make this adjustment for each source.

1 Select and play software encoded with Dolby Surround, Dolby Digital, or DTS Digital Surround.

If "AUTO SR (Auto Surround)" is set to "ON"
Playing a digital source automatically activates an appropriate Surround mode. (See page 16.)

2 Press SURROUND ON/OFF to activate an appropriate Surround mode — Pro Logic, Dolby Digital, or DTS Digital Surround.

- Each time you press the button, Surround mode turns on and off alternately.



Ex.: When Dolby Digital is activated

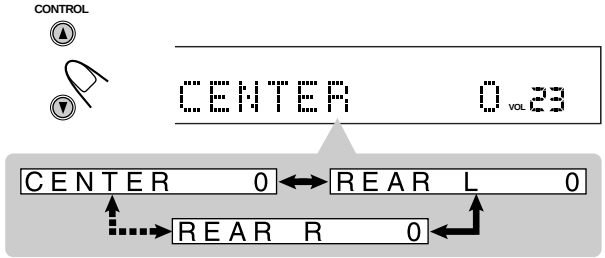
Note:

When playing back an analog source, "SURROUND ON" will not appear, and "PRO LOGIC" appears as soon as you press SURROUND. (The PRO LOGIC indicator also lights up on the display.)

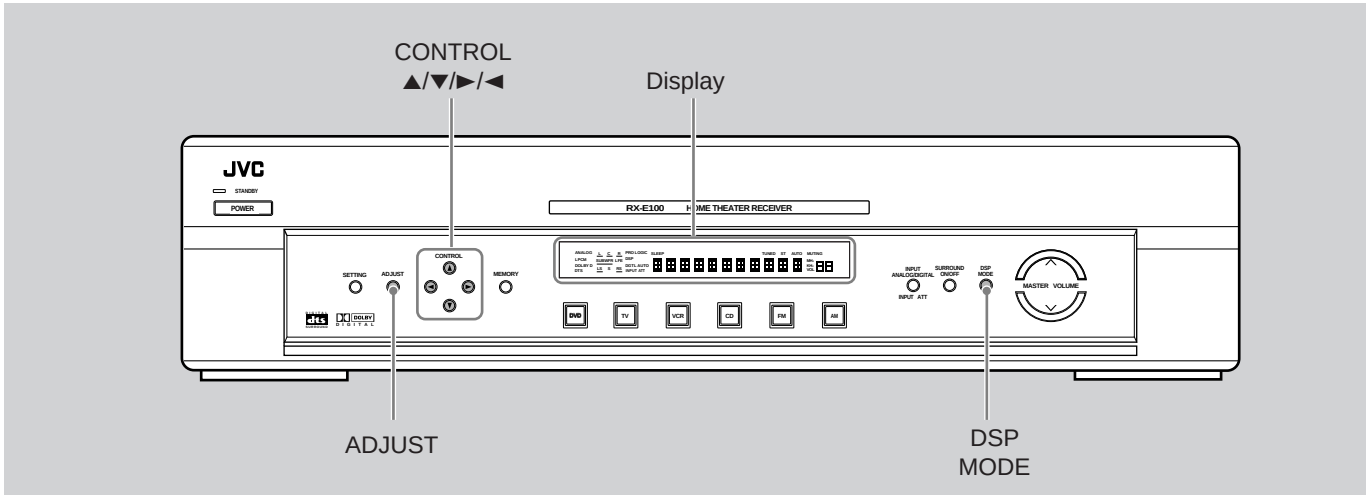
3 Press ADJUST.

The CONTROL buttons now work for sound adjustments.

4 Press CONTROL ▼ (or ▲) repeatedly until one of the following indications (with the current setting)* appears.



TO BE CONTINUED ON THE NEXT PAGE

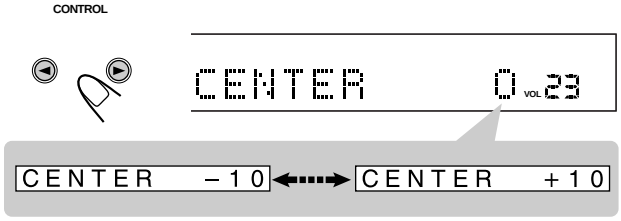


CENTER	: To adjust the center speaker output level (from –10 to +10).
REAR L	: To adjust the left rear speaker output level (from –10 to +10).
REAR R	: To adjust the right rear speaker output level (from –10 to +10).

* "0" is the initial setting for these speaker output levels. If you have already changed the setting, another setting will be shown.

5 Press CONTROL ► (or ◄) to adjust the speaker output level.

- Make adjustments so that the sound level of the selected speaker is set at the same level as that of the front speakers.



Ex.: When adjusting the center speaker output level

6 Repeat steps 4 and 5 to adjust the other speaker levels.

To cancel Surround Mode

Press SURROUND ON/OFF again so that "STEREO" appears on the display.

- If Surround mode is canceled while playing back multichannel digital software, all channel signals are mixed and output through the front speakers (and subwoofer if you have connected a subwoofer and set the subwoofer setting correctly – "YES.")

Using Theater Surround (Front Panel)

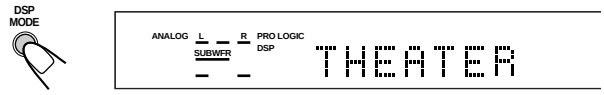
Theater Surround cannot be used with another DSP mode. Once Theater Surround is activated, the other DSP mode in use will be canceled.
When using the buttons on the front panel, no test tone is available. Make adjustments while listening to the sound of the source played back.

- You have to make this adjustment for each source.
- You cannot use Theater Surround if no rear speakers are connected.

1 Select and play software encoded with Dolby Surround.

2 Press DSP MODE repeatedly until "THEATER" appears on the display.

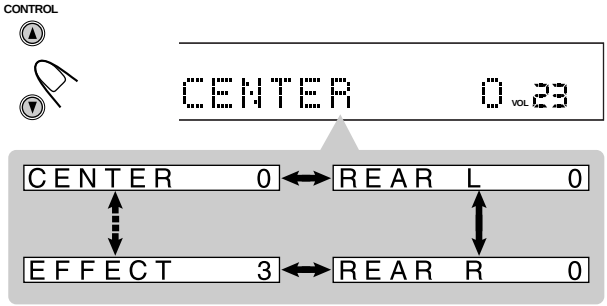
The PRO LOGIC and DSP indicators light up on the display.



3 Press ADJUST.

The CONTROL buttons now work for sound adjustments.

4 Press CONTROL ▼ (or ▲) repeatedly until one of the following indications (with the current setting)* appears.

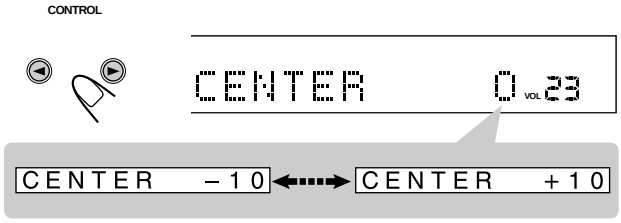


CENTER	: To adjust the center speaker output level (from –10 to +10).
REAR L	: To adjust the left rear speaker output level (from –10 to +10).
REAR R	: To adjust the right rear speaker output level (from –10 to +10).
EFFECT	: To adjust the DSP effect level. As the number increases, the effect becomes stronger (normally set it to "EFFECT 3").

* "0" is the initial setting for the speaker output levels, and "EFFECT 3" is for the DSP effect level.
If you have already changed the setting, another setting will be shown.

5 Press CONTROL ► (or ◄) to make an adjustment.

- When adjusting the speaker output levels, make adjustments so that the sound level of the selected speaker is set at the same level as that of the front speakers.



Ex.: When adjusting the center speaker output level

6 Repeat steps 4 and 5 to make other adjustments.

To cancel Theater Surround

Press DSP MODE repeatedly until "STEREO" appears on the display. The PRO LOGIC and DSP indicators go off.

Using DAP Modes (Front Panel)

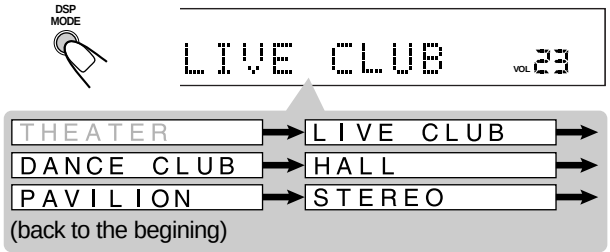
A DAP mode cannot be used with another DSP mode. Once one of the DAP modes is activated, the other DSP mode in use will be canceled.

- You have to make this adjustment for each source.
- You cannot use any DAP mode if no rear speakers are connected.

1 Select and play stereo analog software or Linear PCM digital software.

2 Press DSP MODE repeatedly until one of the DAP modes appears on the display.

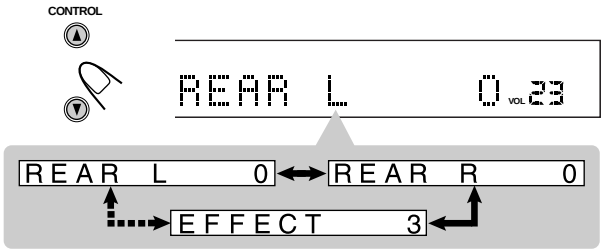
The DSP indicator lights up on the display.



3 Press ADJUST.

The CONTROL buttons now work for sound adjustments.

4 Press CONTROL ▼ (or ▲) repeatedly until one of the following indications (with the current setting)* appears.

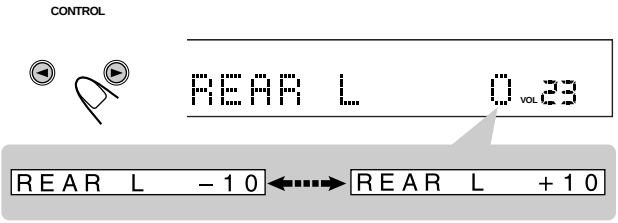


REAR L	: To adjust the left rear speaker output level (from –10 to +10).
REAR R	: To adjust the right rear speaker output level (from –10 to +10).
EFFECT	: To adjust the DSP effect level. As the number increases, the effect becomes stronger (normally set it to "EFFECT 3").

* "0" is the initial setting for the speaker output levels, and "EFFECT 3" is for the DSP effect level.
If you have already changed the setting, another setting will be shown.

5 Press CONTROL ► (or ◄) to make an adjustment.

- When adjusting the speaker output levels, make adjustments so that the sound level of the selected speaker is set at the same level as that of the front speakers.



Ex.: When adjusting the left rear speaker output level

6 Repeat steps 4 and 5 to make other adjustments.

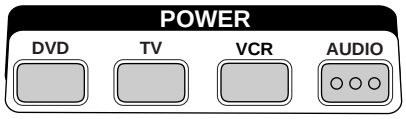
To cancel DAP Mode

Press DSP MODE repeatedly so that "STEREO" appears on the display. The DSP indicator goes off.

You can use the remote control to operate not only this receiver but also other JVC products.

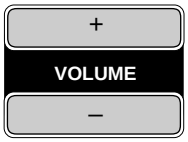
- Refer also to the manuals supplied for the other products.
  – This remote control can operate a VCR whose remote control code is set to A code.
- To operate the other products, aim the remote control directly at the remote sensor on the target product.

❑ Turning on the Power — POWER buttons



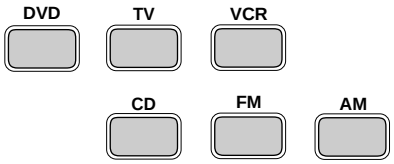
DVD	: Turn on or off a JVC DVD player.
TV	: Turn on or off a JVC TV.
VCR	: Turn on or off a JVC VCR.
AUDIO	: Turn on or off this receiver.

❑ Adjusting the volume — VOLUME buttons (see also page 8)



Adjust the volume level.

❑ Selecting the source — Source selecting buttons (see also page 8)



DVD	: Select the DVD player.
TV	: Select the TV.
VCR	: Select the VCR.
CD	: Select the CD player.
FM	: Select the FM band.
AM	: Select the AM band.

These buttons also change the functions of the 10 keys, and make them work to operate the target source components. (See the next page.)

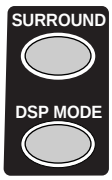
❑ Selecting analog or digital input — INPUT A/D button (see also page 11)

Select either analog input or digital input for the digital source.

❑ Turning off the sound temporarily — MUTING button (see also page 9)

Turn on or off the sound output.

❑ Creating realistic sound fields — SURROUND and DSP MODE buttons (see also pages 24 – 28)



SURROUND	: Turn on or off Surround mode.
DSP MODE	: Select the DSP modes (Theater Surround and DAP modes). Each time you press the button, the DSP modes change.

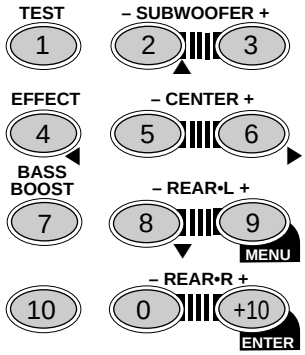
❑ Adjusting the sound — SOUND button (see also pages 18, 19, 25, 27, 28)

Change the functions of 10 keys, and make them work for sound adjustments.

❑ Turning off the receiver automatically — SLEEP button (see also page 9)

Set the shut-off time until the receiver turns off automatically.

❑ Adjusting the sound and operating other JVC products — 10 keys



■ After pressing **SOUND**, you can use the 10 keys for sound adjustments. (See also pages 18, 19, 25 – 28)

TEST	: Turn on or off the test tone output.
EFFECT	: Change the DSP effect level.
BASS BOOST	: Turn on or off Bass Boost.
SUBWOOFER +/–	: Adjust the subwoofer level.
CENTER +/–	: Adjust the center speaker output level.
REAR L +/–	: Adjust the left rear speaker output level.
REAR R +/–	: Adjust the right rear speaker output level.

■ After pressing **DVD** (source selecting button), you can use the 10 keys (**2**, **4**, **6**, **8**, **9**, **+10**) for DVD menu operations.

MENU	: Display the menu screen.
ENTER	: Enter a selected item.
▲ / ▼ / ◄ / ►	: Select an item on the menu screen.

■ After pressing **TV** (source selecting button), you can use the 10 keys for selecting a channel on the TV.

1 – 9, 0	: Select a channel.
10	: Functions as the RETURN button.
+10	: Functions as the +100 button.

■ After pressing **VCR** (source selecting button), you can use the 10 keys for VCR operations.

1 – 9, 0	: Select a channel on the VCR.

■ After pressing **CD**, you can use the 10 keys for CD operations.

1 – 10, +10	: Select a track.

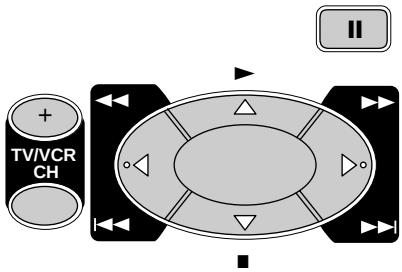
■ After pressing **FM** or **AM**, you can use the 10 keys for tuner operations.

1 – 10, +10	: Select a preset channel.

Example: Selecting CD track numbers or preset FM/AM channel numbers using the 10 keys

- For number 5, press 5.
- For number 15, press +10, then 5.
- For number 30, press +10, +10, then 10.

❑ Operating other JVC products — Audio/video operation buttons



■ After pressing **DVD** (source selecting button), you can use the following buttons for DVD operations.

►	: Start playback.
■	: Stop playback.
II	: Pause playback. To release it, press ►.
►►I	: Skip to the beginning of the next track.
I◄◄	: Return to the beginning of the current (or previous) track.

■ After pressing **TV** (source selecting button), you can use the following buttons for changing the channels on the TV.

TV/VCR CH +/–	: Change channel numbers.

■ After pressing **VCR** (source selecting button), you can use the following buttons for VCR operations.

TV/VCR CH +/–	: Change channel numbers on the VCR.
►	: Start playback.
■	: Stop playback.
II	: Pause playback. To release it, press ►.
►►	: Fast-wind a tape.
◄◄	: Rewind a tape.

■ After pressing **CD** (source selecting button), you can use the following buttons for CD operations.

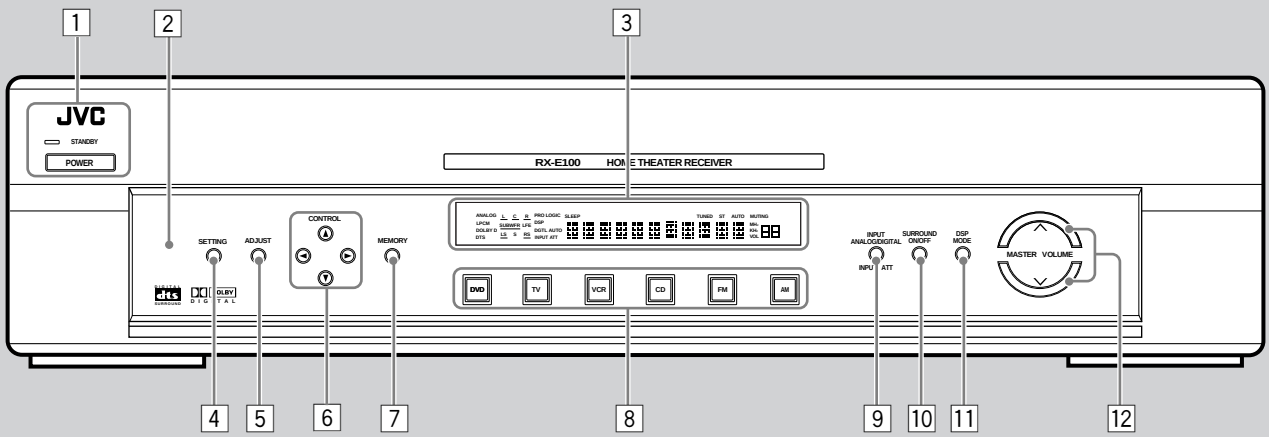
►	: Start playback.
■	: Stop playback.
II	: Pause playback. To release it, press ►.
►►I	: Skip to the beginning of the next track.
I◄◄	: Return to the beginning of the current (or previous) track.

■ These buttons works only for TVs.

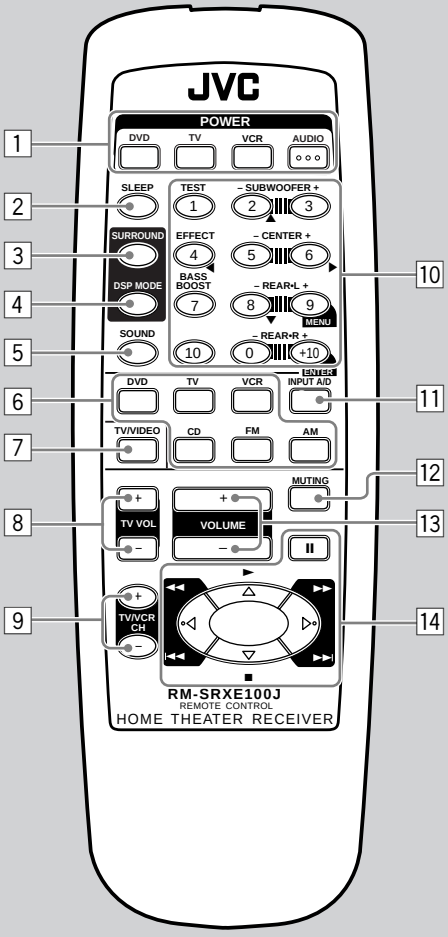
TV/VIDEO	: Change the input mode (Video input and TV tuner) on the TV.
TV VOL +/–	: Adjust the volume on the TV.

Parts Identification

Front Panel



Remote Control



See pages in the parentheses for details.

Front Panel

1 POWER button and STANDBY lamp (8)
2 Remote sensor
3 Display
4 SETTING button (10, 12 – 16)
5 ADJUST button (17 – 19, 29 – 31)
6 CONTROL buttons (10 – 21, 29 – 31)
▲ / ▼ / ◄ / ►
7 MEMORY button (20, 21)
8 Source selecting buttons (8, 11, 20, 21)
DVD, TV, VCR, CD, FM, AM
9 INPUT ANALOG/DIGITAL button (11)
INPUT ATT button (17)
10 SURROUND ON/OFF button (24, 29)
11 DSP MODE button (24, 30, 31)
12 VOLUME ∧ / ∨ buttons (8)

Remote Control

1 POWER buttons (8, 32)
TV, VCR, AUDIO
2 SLEEP button (9, 32)
3 SURROUND button (24, 25, 32)
4 DSP MODE button (24, 27, 28, 32)
5 SOUND button (18, 19, 25, 27, 28, 32)
6 Source selecting buttons (8, 11, 20, 21)
DVD, TV, VCR, CD, FM, AM
7 TV/VIDEO button (33)
8 TV VOL +/– buttons (33)
9 TV/VCR CH +/– buttons (33)
10 • 10 keys for selecting preset channels (21, 33)
• 10 keys for adjusting sound (18, 19, 26 – 28)
• 10 keys for operating audio/video components (33)
11 INPUT A/D (analog/digital) button (11)
12 MUTING button (9)
13 VOLUME +/– buttons (8)
14 Operating buttons for audio/video components (33)

Troubleshooting

Use this chart to help you solve daily operational problems. If there is any problem you cannot solve, contact your JVC service center.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The power does not comes on.	The power cord is not plugged in.	Plug the power cord into an AC outlet.
No sound from speakers.	Speaker signal cables are not connected.	Check speaker wiring and reconnect if necessary.
	An incorrect source is selected.	Select the correct source.
	Muting is activated.	Press MUTING to cancel the mute.
	An incorrect input mode (analog or digital) is selected.	Select the correct input mode (analog or digital).
	Connections are incorrect.	Check connections.
Sound from one speaker only.	The balance is set to one extreme.	Adjust the balance properly (see page 17).
Continuous hiss or buzzing during FM reception.	Incoming signal is too weak.	Connect an outdoor FM antenna or contact your dealer.
	The station is too far away.	Select a new station.
	An incorrect antenna is used.	Check with your dealer to be sure you have a correct antenna.
	Antennas are not connected properly.	Check connections.
Occasional cracking noise during FM reception.	Ignition noise from automobiles.	Move the antenna farther from automobile traffic.
"OVERLOAD" starts flashing on the display.	Speakers are overloaded because of high volume.	1. Press POWER on the front panel to turn off the receiver. 2. Stop the playback source. 3. Turn on the receiver again, and adjust the volume.
	Speakers are overloaded because of short circuit of speaker terminals.	Press POWER on the front panel to turn off the receiver, then check the speaker wiring. If "OVERLOAD" does not disappear, unplug the AC power cord, then plug it back again. If speaker wiring is not short-circuited, contact your dealer.
The STANDBY lamp lights up after turning on the power, but soon the receiver turns off (into standby mode).	The receiver is overloaded because of a high voltage.	Press POWER on the front panel to turn off the receiver. After unplugging the power cord, consult your dealer.
Remote control does not operate as you intend.	The remote control is not ready for your intended operation.	Press SOUND or source selecting buttons first, then press the button you want to use. (See pages 32 and 33.)
Remote control does not work.	There is an obstruction hiding the remote sensor on the receiver.	Remove the obstruction.
	Batteries are weak.	Replace batteries.

Specifications

Designs & specifications are subject to change without notice.

Amplifier

Output Power	At Stereo operation:	
	Front channels:	**70 W per channel, min. RMS, driven into 8 Ω, 40 Hz to 20 kHz with no more than 0.8% total harmonic distortion.**
	At Surround operation:	
	Front channels:	70 W per channel, min. RMS, driven into 8 Ω at 1 kHz with no more than 0.8% total harmonic distortion.
	Center channel:	70 W, min. RMS, driven into 8 Ω at 1 kHz, with no more than 0.8% total harmonic distortion.
	Rear channels:	70 W per channel, min. RMS, driven into 8 Ω at 1 kHz, with no more than 0.8% total harmonic distortion.
Audio Input Sensitivity/Impedance (1 kHz):	CD, TV, VCR, DVD:	200 mV/47 k Ω
Audio Input (DIGITAL IN)* :	Coaxial: DIGITAL 1 (DVD):	0.5 V p-p/75 Ω
	Optical: DIGITAL 2 (TV):	–21 dBm to –15 dBm (660 nm ±30 nm)
	* Corresponding to Linear PCM, Dolby Digital, and DTS Digital Surround (with sampling frequency — 32 kHz, 44.1 kHz, 48 kHz).	
Audio Output Level:	VCR:	200 mV
Signal-to-Noise Ratio ('66 IHF/'78 IHF):	CD, TV, VCR, DVD:	85 dB/75 dB
Frequency Response (8 Ω):	CD, TV, VCR, DVD:	20 Hz to 20 kHz (±1 dB)
Tone Control:	Bass (100 Hz):	±10 dB
	Treble (10 kHz):	±10 dB
Bass Boost:	+6 dB ± 1 dB at 70 Hz	

FM tuner (IHF)

Tuning Range:	87.5 MHz to 108.0 MHz	
Usable Sensitivity:	Monaural:	12.8 dBf (1.2 µV/75 Ω)
50 dB Quieting Sensitivity:	Monaural:	21.3 dBf (3.2 µV/75 Ω)
	Stereo:	41.3 dBf (31.5 µV/75 Ω)
Signal-to-Noise Ratio (IHF-A weighted):	Monaural:	78 dB at 85 dBf
	Stereo:	73 dB at 85 dBf
Total Harmonic Distortion:	Monaural:	0.4% at 1 kHz
	Stereo:	0.6% at 1 kHz
Stereo Separation at REC OUT:	35 dB at 1 kHz	
Alternate Channel Selectivity:	45 dB: (±400 kHz)	
Frequency Response:	30 Hz to 15 kHz: (+0.5 dB, –3 dB)	

AM tuner

Tuning Range:	530 kHz to 1 710 kHz	
Usable Sensitivity:	Loop antenna	400 µV/m
Signal-to-Noise Ratio:		50 dB (100 mV/m)

General

Power Requirements:	AC 120V ∿, 60 Hz
Power Consumption:	150 W/190 VA (at operation) 2 W (in standby mode)
Dimensions (W x H x D):	17 3/16 in. x 3 15/16 in. x 15 11/16 in. (435 mm x 100 mm x 398 mm)
Mass:	16.4 lbs (7.4 kg)

Memorandum

Note the adjustments you have made for each source below for your future reference.

The following adjustments can be stored for each source:
- Analog/digital input mode (see page 11)
- Input attenuator mode (see page 17)
- Balance (see page 17)
- Bass boost (see page 18)
- Tone adjustment (see page 19)
- Subwoofer level (see page 19)
- Surround mode settings (see pages 25, 29)
  Theater Surround settings (see pages 27, 30)
  DAP mode settings (see pages 28, 31)

Source Name:

• Analog/digital input:	ANALOG	/	DGTL AUTO
• Input Attenuator:	ON	/	NORMAL
• Bass Boost:	ON	/	OFF
• Tone adjustment			
Bass:			
Treble:			
• Subwoofer level			
• Balance			
• Surround mode/Theater Surround/DAP modes			
Mode:	SURROUND / THEATER LIVE CLUB DANCE CLUB / HALL PAVILION / STEREO		
Center level :			
Left rear level:			
Right rear level :			
Effect level:			

Source Name:

• Analog/digital input:	ANALOG	/	DGTL AUTO
• Input Attenuator:	ON	/	NORMAL
• Bass Boost:	ON	/	OFF
• Tone adjustment			
Bass:			
Treble:			
• Subwoofer level			
• Balance			
• Surround mode/Theater Surround/DAP modes			
Mode:	SURROUND / THEATER LIVE CLUB DANCE CLUB / HALL PAVILION / STEREO		
Center level :			
Left rear level:			
Right rear level :			
Effect level:			

• Analog/digital input:	ANALOG	/	DGTL AUTO
• Input Attenuator:	ON	/	NORMAL
• Bass Boost:	ON	/	OFF
• Tone adjustment			
Bass:			
Treble:			
• Subwoofer level			
• Balance			
• Surround mode/Theater Surround/DAP modes			
Mode:	SURROUND / THEATER LIVE CLUB DANCE CLUB / HALL PAVILION / STEREO		
Center level :			
Left rear level:			
Right rear level :			
Effect level:			

• Analog/digital input:	ANALOG	/	DGTL AUTO
• Input Attenuator:	ON	/	NORMAL
• Bass Boost:	ON	/	OFF
• Tone adjustment			
Bass:			
Treble:			
• Subwoofer level			
• Balance			
• Surround mode/Theater Surround/DAP modes			
Mode:	SURROUND / THEATER LIVE CLUB DANCE CLUB / HALL PAVILION / STEREO		
Center level :			
Left rear level:			
Right rear level :			
Effect level:			

QUALITY JVC SERVICE

HOW TO LOCATE YOUR JVC SERVICE CENTER

TOLL FREE : 1-800-537-5722
http://www.jvcservice.com

Dear customer:
In order to receive the most satisfaction from your purchase, read the instruction booklet before operating the unit. In the event that repair is necessary, or for the address nearest your location, please refer to the factory service center list below or within the Continental United States, Call 1-800-537-5722 for your authorized servicer. Remember to retain your Bill of Sale for Warranty Service.

—JVC

JVC SERVICE & ENGINEERING COMPANY OF AMERICA

DIVISION OF JVC AMERICAS CORP.

FACTORY SERVICE CENTER LOCATIONS

10 New Maple Avenue
Pine Brook, NJ 07058-9641
(973) 396-1000

1500 Lakes Parkway
Lawrenceville, GA 30243-5857
(770) 339-2582

705 Enterprise Street
Aurora, IL 60504-8149
(630) 851-7855

5665 Corporate Avenue
Cypress, CA 90630-0024
(714) 229-8011

2969 Mapunapuna Place
Honolulu, HI 96819-2040
(808) 833-5828

10700 Hammerly, Suite 110
Houston, TX 77043
(713) 935-9331

13 Cummings Park
Woburn, MA 01801
(781) 376-9100

8192 State Road 84
Davie, FL 33324
(954) 472-1960

890 Dubuque Avenue
South San Francisco, CA 94080-1804
(650) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is the key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

NATIONAL HEADQUARTERS
JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.
1700 Valley Road
Wayne, NJ 07470

If you ship the product • • •

Pack your JVC unit in the original carton or one of equivalent size and strength. Enclose, with the unit, a letter stating the problem or symptom that exists and also a copy of the receipt or bill of sale you received when you purchased your JVC unit. Print your home return address on the outside and the inside of the carton. Send to the appropriate JVC Factory Service Center as listed above.

Don't service it yourself.

CAUTION

To prevent electrical shock, do not open the cabinet. No user serviceable parts inside.
Refer servicing to qualified service personnel.

ACCESSORIES

To purchase accessories for your JVC product, you may contact your local JVC Dealer.
Or from the 48 Continental United States call toll free : 800-882-2345

LIMITED WARRANTY AUDIO-2

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIAL AND WORKMANSHIP from the date of original retail purchase for the period as shown below. ("The Warranty Period.")

PARTS	LABOR
2YR	2YR

THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY(50) UNITED STATES, THE DISTRICT OF COLUMBIA AND IN COMMONWEALTH OF PUERTO RICO.

WHAT WE WILL DO:

If this product is found to be defective, JVC will repair or replace defective parts at no charge to the original owner. Such repair and replacement services shall be rendered by JVC during normal business hours at JVC authorized service centers. Parts used for replacement are warranted only for the remainder of the Warranty Period. All products and parts thereof may be brought to a JVC authorized service center on a carry-in basis except for Television sets having a screen size 25 inches and above which are covered on an in-home basis.

WHAT YOU MUST DO FOR WARRANTY SERVICE:

Return your product to a JVC authorized service center with a copy of your bill of sale. For your nearest JVC authorized service center, please call toll free: (800)537-5722.
If service is not available locally, box the product carefully, preferably in the original carton, and ship, insured, with a copy of your bill of sale plus and letter of explanation of the problem to the nearest JVC Factory Service Center, the name and location of which will be given to you by the toll-free number.
If you have any questions concerning your JVC Product, please contact our Customer Relations Department.

WHAT IS NOT COVERED:

This limited warranty provided by JVC does not cover:

1. Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if affixed to any attachment not provided with the products, or if the model number or serial number has been altered, tampered with, defaced or removed;
2. Initial installation and installation and removal for repair;
3. Operational adjustments covered in the Owner's Manual, normal maintenance, video and audio head cleaning;
4. Damage that occurs in shipment, due to act of God, and cosmetic damage;
5. Signal reception problems and failures due to line power surge;
6. Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus(Needle) are covered for 90 days from the date of purchase;
7. Accessories;
8. Batteries (except the Rechargeable Batteries are covered for 90 days from the date of purchase);

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long an implied warranty last, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

JVC COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.
1700 Valley Road
Wayne, NJ 07470

REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY, THIS WARRANTY DOES NOT APPLY. FOR DETAILS OF REFURBISHED PRO DUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT.

For customer use:

Enter below the Model No. and Serial No. which is located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No.: _____ Serial No.: _____

Purchase date: _____ Name of dealer: _____

JVC

VICTOR COMPANY OF JAPAN, LIMITED