JVC

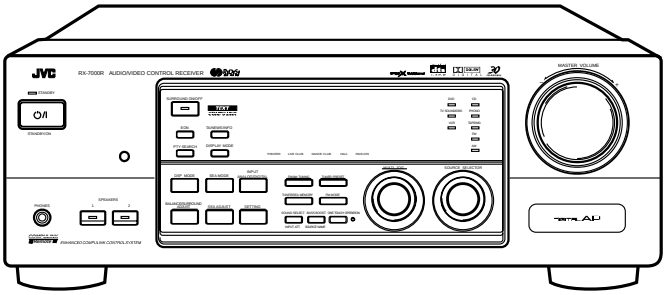
SERVICE MANUAL

AUDIO/VIDEO CONTROL RECEIVER

RX-7000RBK

Area Suffix

E ···· Continental Europe
EN ···· Northern Europe



digital AP

TEXT COMPU LINK

COMPU LINK Remote

3D-PHONIC

MPEG Multichannel

DIGITAL dts SURROUND

DOLBY DIGITAL

RIDISI

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No.20846
Jul. 2000

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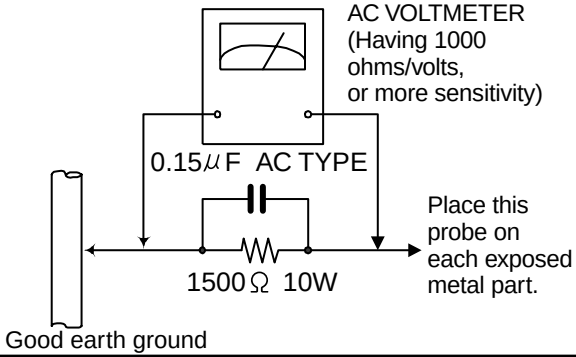
Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) 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.**

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.

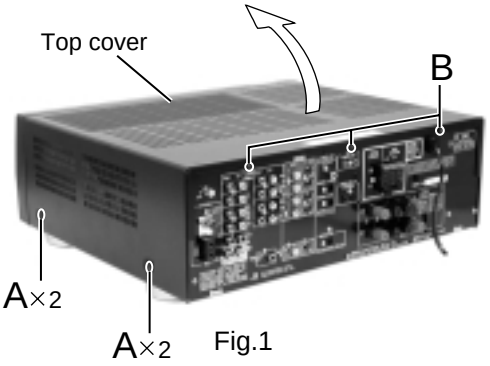


Fig.1

■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 CN400 on the main board and CN402 on the power supply board in the front panel assembly.

2. Cut off the tie band fixing the harness.

3. Disconnect the harness from connector CN202 on the video board.

4. Remove the three screws C attaching the front panel assembly.

5. Remove the five screws D attaching the front panel assembly on the bottom of the body. Detach the front panel assembly toward the front.

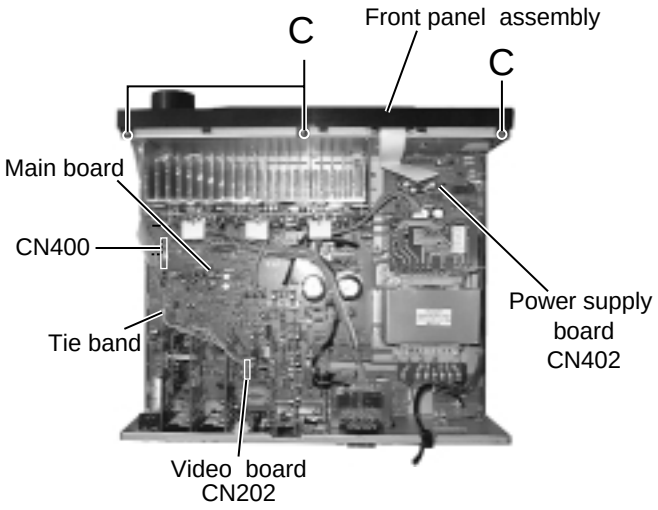


Fig.2

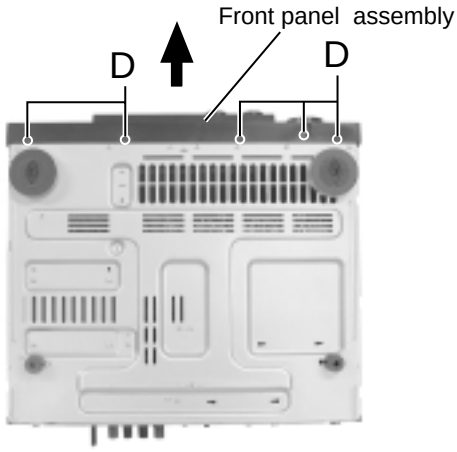


Fig.3

■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 twenty-six screws E attaching the each boards to the rear panel on the back of the body.

3. Remove the three screws F attaching the rear panel on the back of the body.

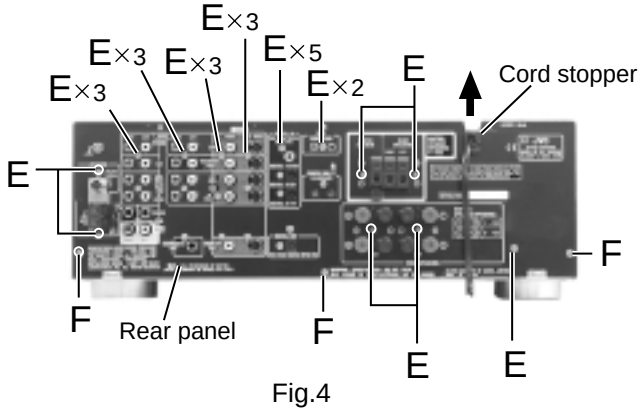


Fig.4

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

(See Fig.5 to 9)

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

1. Cut off the tie band fixing the harness.
2. Disconnect the harness from connector CN202 on the video board.
3. Disconnect the tuner board from connector CN101, CN102 on the main board.
4. Disconnect the SEA board and the audio board from connector CN452, CN301and CN302 on the main board.
5. Disconnect the V-audio board from connector CN303 on the main board.
6. Disconnect the relay board 4.Then, disconnect the video board and the S-video board from connector CN201 and CN241 on the main board.
7. Disconnect the DSP board from connector CN501 and CN601 on the main board while removing the DSP board from the bracket fixing the lower part of the DSP board at the same time.
8. Disconnect the compulink board from connector CN255 on the main board.

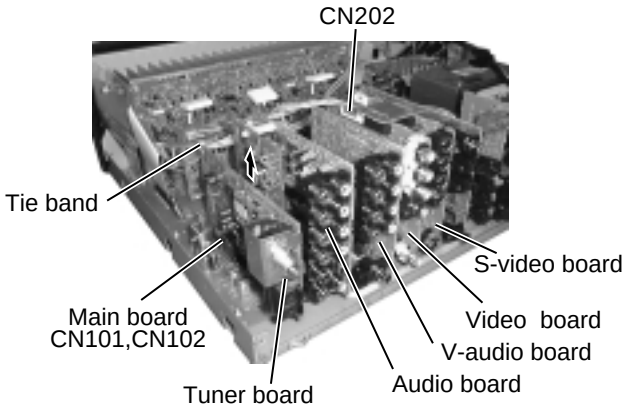


Fig.5

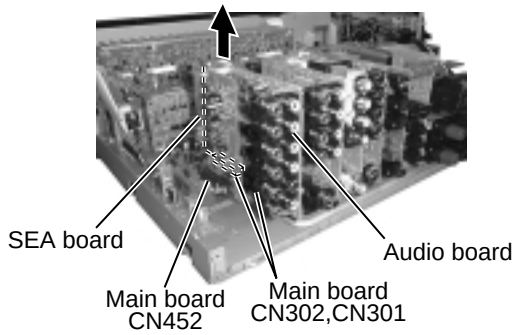


Fig.6

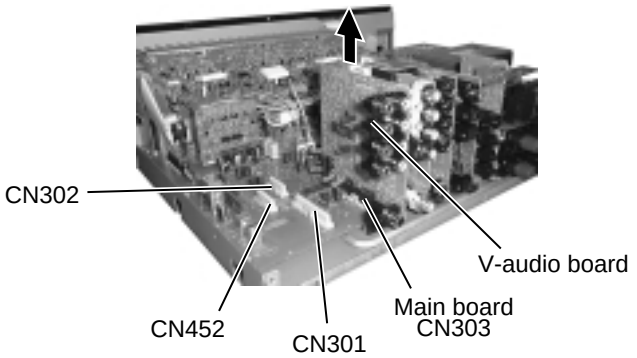


Fig.7

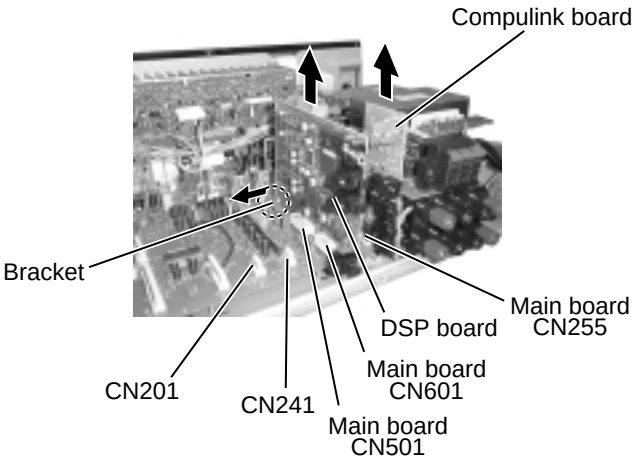


Fig.9

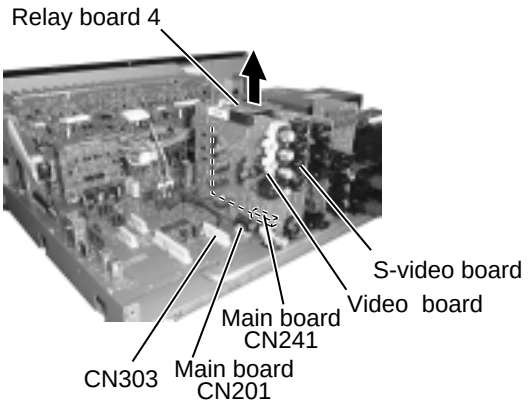


Fig.8

■Removing the main board / regulator board (See Fig.10 to 12)

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

ATTENTION: It is not necessary to remove the boards connected to the back of the main board. But to disassemble the main board and the power supply board efficiently, remove them.

1. Disconnect the card wire from connector CN400 on the main board.
2. Cut off the four tie bands fixing the harnesses.
3. Disconnect the harness from connector CN811 on the power transformer board.
4. Disconnect the relay board 1, 2 and 3 from the main board and the power supply board.
5. Disconnect the harness from connector CN704, CN821, CN901, CN711, CN712, CN931 and CN932, CN961.
6. Remove the screw G attaching the regulator board to the heat sink cover.
7. Remove the eight screws H attaching the main board to the heat sink cover.
8. Remove the five screws I and the screw J attaching the main board to the chassis base (The resistor board will come off at the same time).

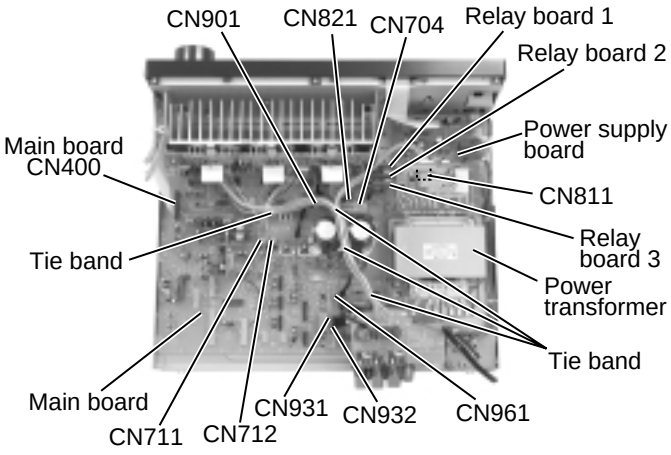


Fig.10

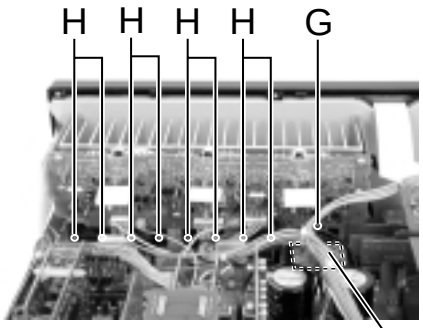


Fig.11

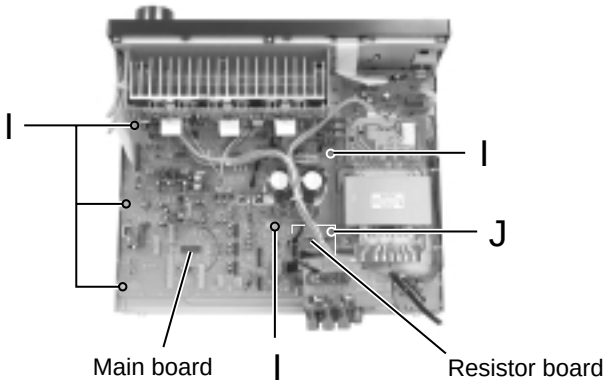


Fig.12

■Removing the resistor board (See Fig.13)

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

1. Disconnect the harness from connector CN881 on the resistor board.
2. Remove the screw J attaching the resistor board.

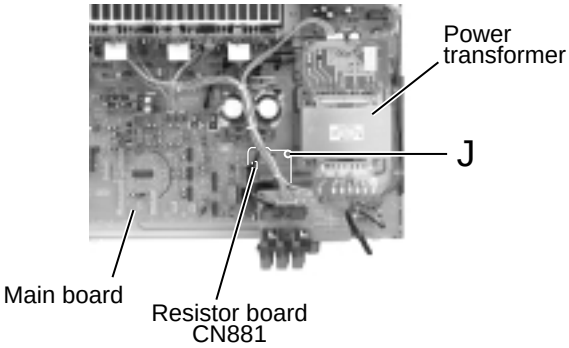


Fig.13

■Removing the amplifier board (See Fig.10 and 14)

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

1. Cut off the four tie bands fixing the harnesses.
2. Disconnect the harnesses from connector CN711, CN712, CN704 and CN901 on the main board respectively.
3. Remove the four screws K and six screws L attaching the amplifier board.
4. If necessary, unsolder the harness connected to connector CN803 and CN952 on the amplifier board.

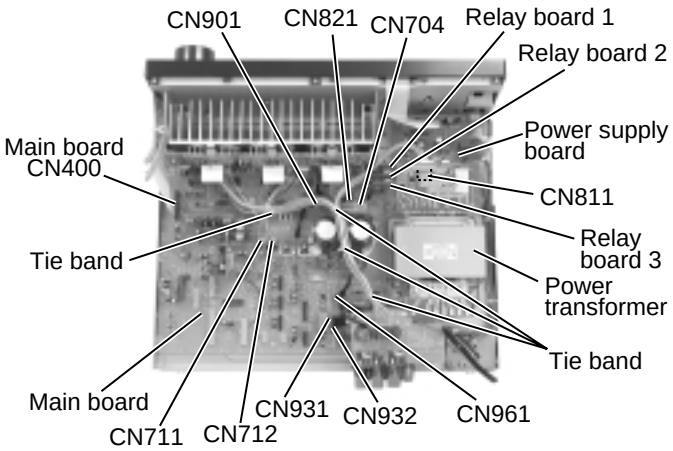


Fig.10

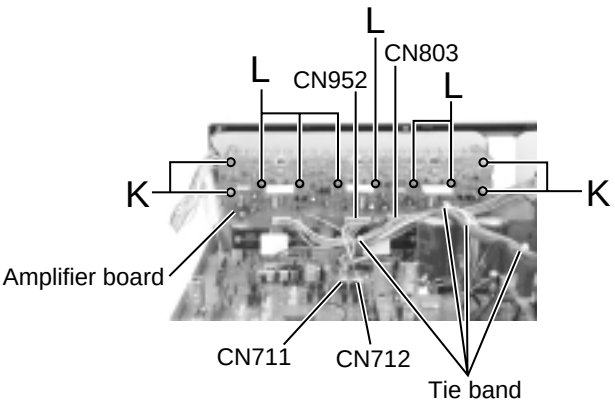


Fig.14

■Removing the power transformer (See Fig.15)

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

1. Unsolder the two harnesses connected to the power transformer.
2. Disconnect the harness from connector CN811 and the harnesses connected to connector CN55 and CN56 on the power transformer board.
3. Remove the four screws M attaching the power transformer.

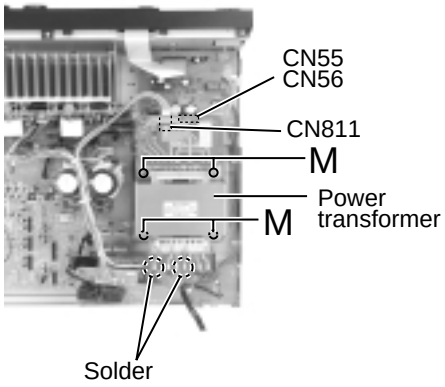


Fig.15

■Removing the power / fuse board (See Fig.16)

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

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

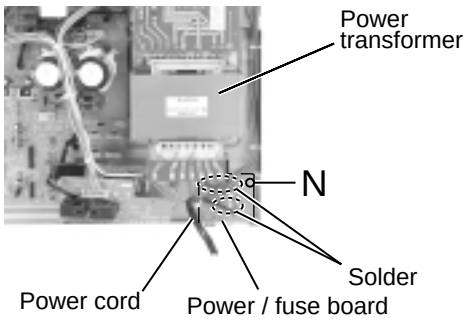


Fig.16

■Removing the power supply board (See Fig.17 and 18)

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

1. Remove the one nut attaching the headphone jack of the power supply board on the front side of the body.
2. Disconnect the relay board 1, 2 and 3 from the power supply board and the main board respectively.
3. Disconnect the harness connected to connector CN55 and CN56 on the power transformer board (If necessary, cut off the two tie bands fixing the harness on the side of the chassis base).
4. Remove the four screws O attaching the power supply board and pull out the power supply board from the front bracket backward.
5. Unsolder the three harnesses connected to the power supply board.

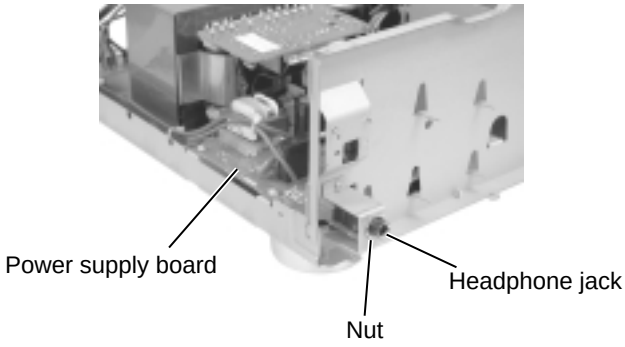


Fig.17

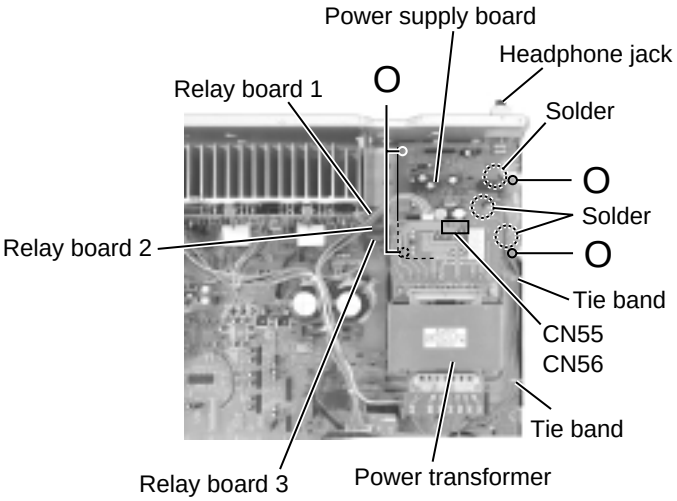


Fig.18

■Removing the system control board / power switch board (See Fig.19 to 20)

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

1. Pull out the volume knob on the front side of the front panel and remove the nut attaching the system control board.
2. Remove the six screws P attaching the system control board on the back of the front panel and disconnect the harness from connector CN422 on the system control board.
3. Disconnect the harness from connector CN430 on the power switch board.
4. Remove the five screws Q attaching the power switch board.

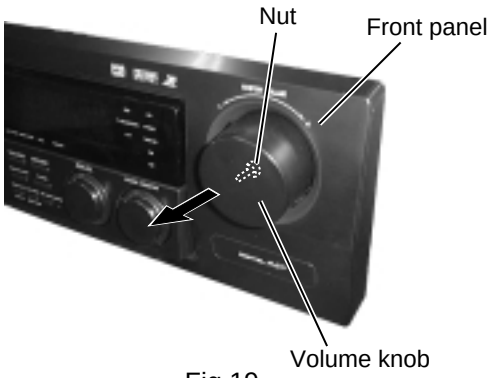


Fig.19

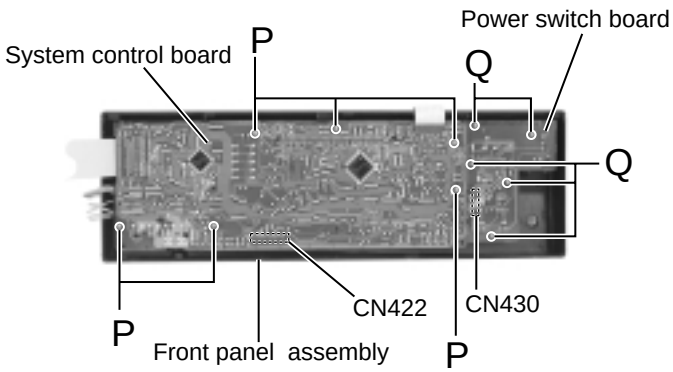


Fig.20

■Removing the operation switch board (See Fig.21 to 23)

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

1. Remove the six screws R attaching the operation switch board on the back of the front panel.

2. On the back of the front panel, release the four joints by pushing the joint tabs inward. Remove the operation switch board toward the front.

3. Pull out the multi jog knob and the source selector knob.

4. Remove the two screws S attaching the operation switch board.

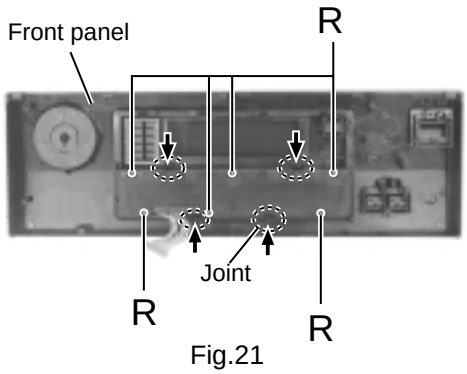


Fig.21

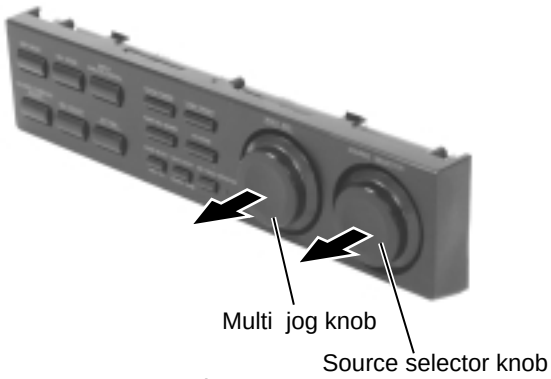


Fig.22

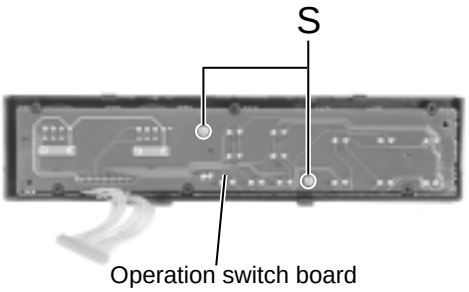


Fig.23

Adjustment method

■ Power amplifier section

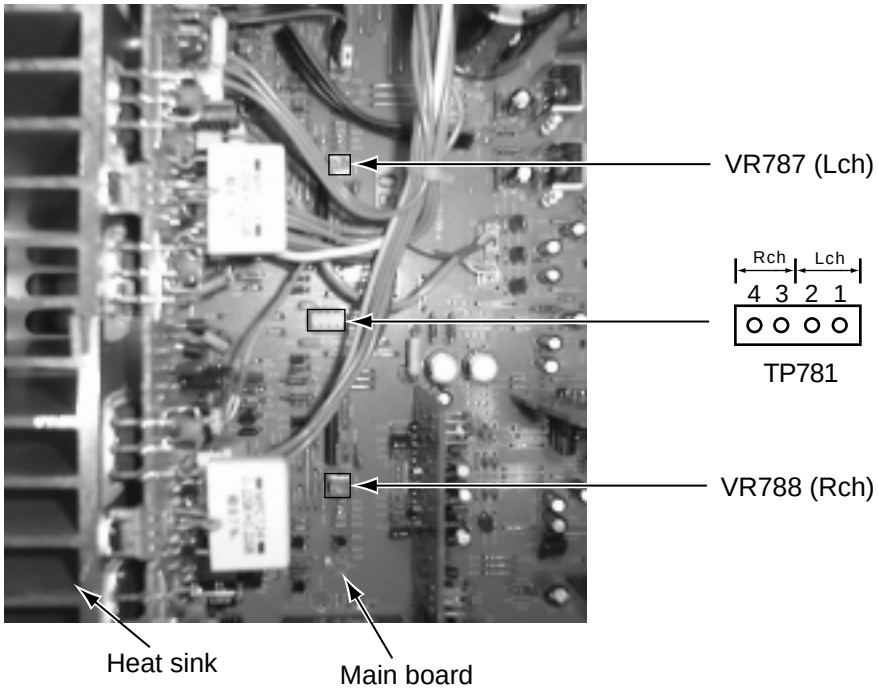
Adjustment of idling current

Measurement location	TP781
Adjustment part	VR787(Lch) , VR788(Rch)

Attention
This adjustment does not obtain a correct adjustment value immediately after the amplifier is used (state that an internal temperature has risen).
Please adjust immediately after using the amplifier after turning off the power supply of the amplifier and falling an internal temperature.

<Adjustment method>
1.Set the volume control to minimum during this adjustment.(No signal & No load)
2.Set the surround mode OFF.
2.Turn VR787 and VR788 fully counterclockwise to warm up before adjustment.
If the heat sink is already warm from previous use the correct adjustment can not be made.
3.For L-ch,connect a DC voltmeter between TP781's pin1 and pin2 (Lch)
And,connect it between pin3 and pin4(Rch).
4.30 minutes later after power on, adjust VR787 for L-ch, or VR788 for R-ch so that the DC voltmeter value has 1mV~10mV.

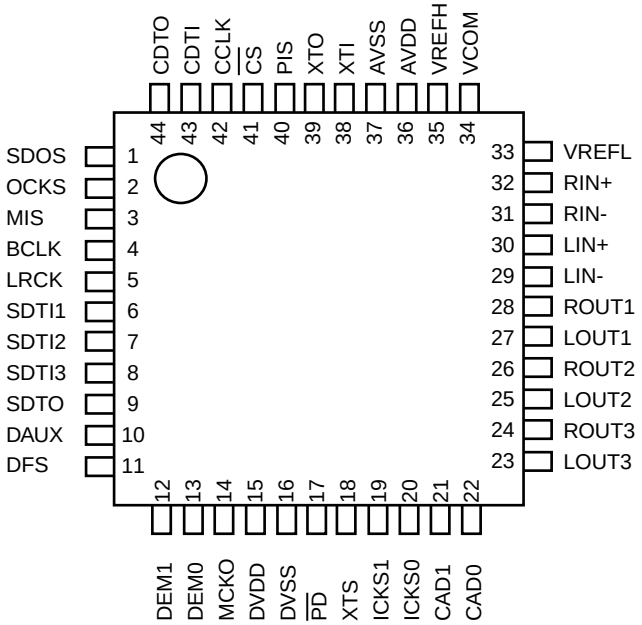
* It is not abnormal though the idling current might not become 0mA even if it is finished to turn variable resistance (VR787,VR788) in the direction of counterclockwise.



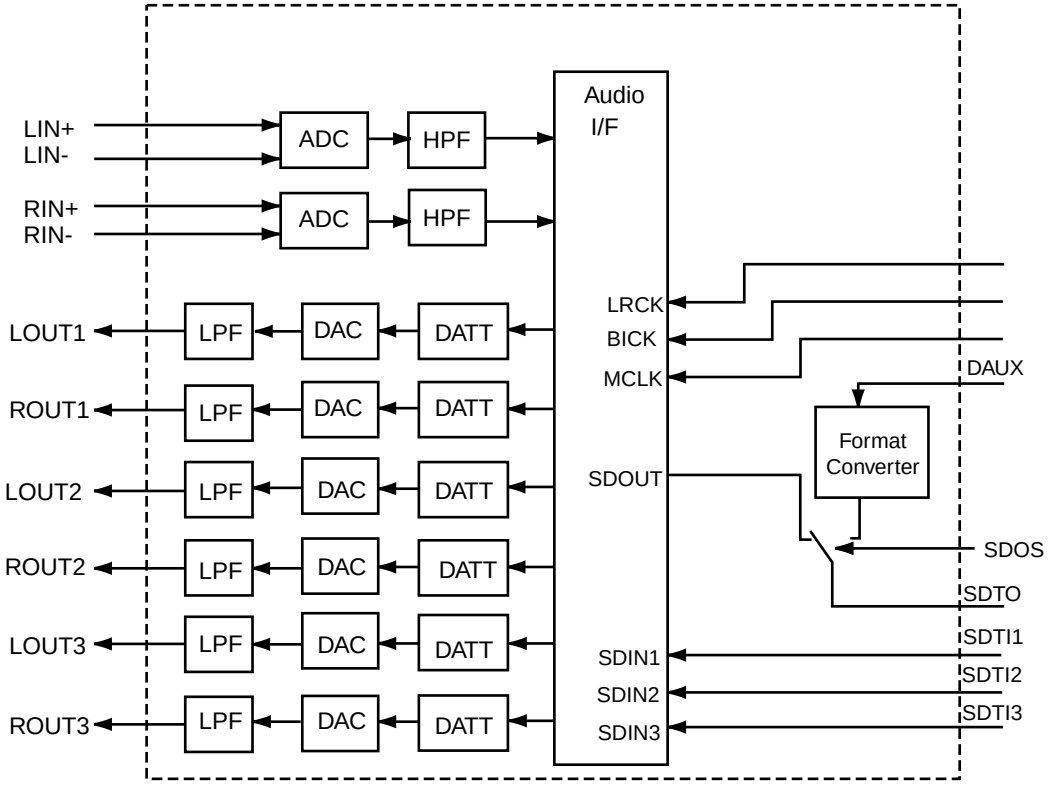
Description of major ICs

■ AK4527 (IC601) : A/D,D/A Converter

1.Pin layout



2.Block diagram



Block Diagram (DIR and AC-3) DSP are external parts)

3. Pin function (1/2)

AK4527(1/2)

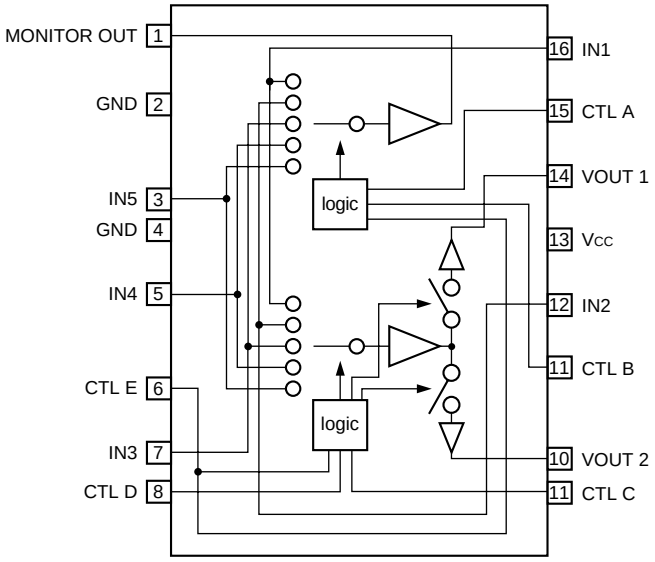
No.	Pin name	I/O	Function
1	SDOS	I	SDTO Source select pin "L" : Internal ADC output, "H" : DAUX input ORed with serial control register if P/S="L".
2	OCKS	I	MCKO Clock frequency select pin "L" : MCLK, "H" : MCLK/2. ORed with serial control register if P/S= "L".
3	MIS	I	Connect to GND
4	BICK	I	Audio serial data clock pin
5	LRCK	I/O	Input/Output 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	AUX Audio serial data input pin
11	DFS	I	Double speed sampling mode pin "L" : Normal speed, "H" : Double speed, the ADC is powered down. ORed with serial control register if P/S="L".
12	DEM1	I	De-emphasis pin ORed with serial control register if P/S="L"
13	DEM0	I	De-emphasis Pin ORed with serial control register if P/S="L"
14	MCKO	O	Master clock output pin
15	DVDD	-	Digital power supply pin
16	DVSS	-	Digital ground pin
17	$\overline{PD}$	I	Power-down & Reset pin When "L", the AK4527 is powered-down and the control registers are reset to default state. If the state of CAD0-1 changes, then the AK4527 must be reset by PDN.
18	XTS	I	X'tal oscillator Select/Test mode pin "H" : X'tal Oscillator selected "L" : External clock source selected
19	ICKS1	I	Input clock select 1 pin
20	ICKS0	I	Input clock select 0 pin
21	CAD1	I	Chip address pin Used during the serial control mode.
22	CAD0	I	Chip address pin Used during the serial control mode.
23	LOUT3	O	Lch #3 analog output pin
24	ROUT3	O	Rch #3 analog output pin
25	LOUT2	O	Lch #2 analog output pin
26	ROUT2	O	Rch #2 analog output pin
27	LOUT1	O	Lch #2 analog output pin
28	ROUT1	O	Rch #1 analog output pin
29	LIN-	I	Lch analog negative Input Pin
30	LIN+	I	Lch analog positive Input Pin
31	RIN-	I	Rch analog negative Input Pin
32	RIN+	I	Rch analog positive Input Pin

3.Pin function (2/2)

AK4527(2/2)

No.	Pin Name	I/O	Function
33	VREFL	I	Negative voltage reference Input pin, AVSS
34	VCOM	O	Common voltage output pin,AVDD/2 Large external capacitor around 2.2uF is used to reduce power-supply noise
35	VREFH	I	Positive voltage reference input pin,AVDD
36	AVDD	-	Analog power supply pin
37	AVSS	-	Analog ground pin
38	XTI	I	X'tal input pin
39	XTO	O	X'tal output pin if XTS="H"
	MCKI	I	External master clock input pin if XTS="L"
40	P/S	I	Parallel/Serial select pin "L" : Serial control mode, "H" : Parallel control mode
41	DIF0	I	Audio data interface format pin in parallel mode
	CS	I	Chip select pin in serial mode
42	DIF1	I	Audio data interface format pin in parallel mode
	CCLK	I	Control data clock pin in serial mode
43	LOOP0	I	Loop back mode pin in parallel mode Enables digital loop-back from ADC to 3 DACs.
	CDTI	I	Control data input pin in serial mode
44	LOOP1	I	Loop back mode pin in parallel mode Enable all 3 DAC channels to be input from SDTII.
	CDTO	O	Control data output pin in serial mode

■ BA7625 (IC242,IC201) / BA7626 (IC241): Video selector



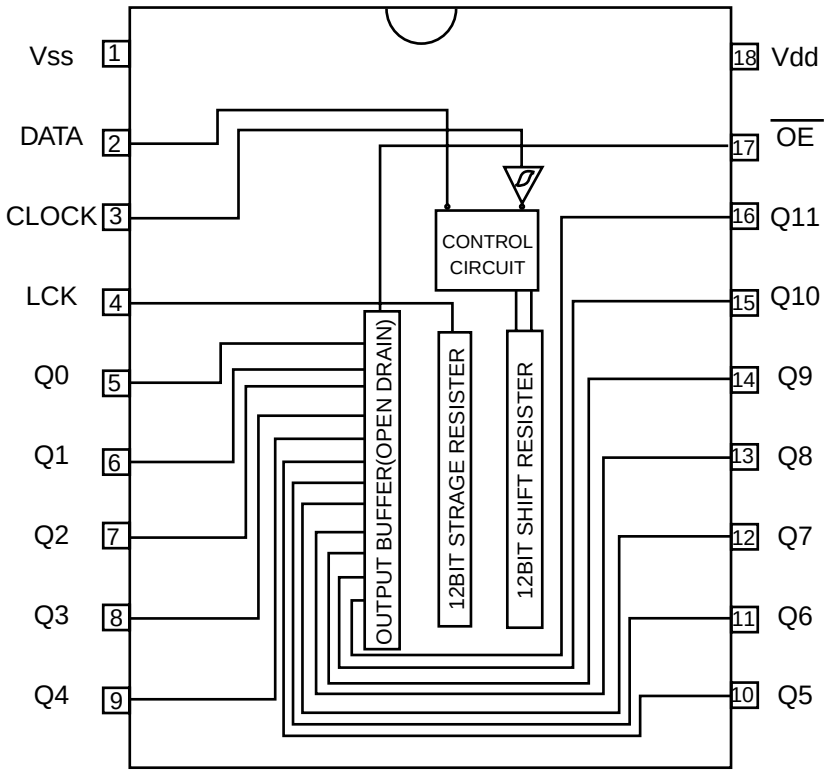
A	B	E	MONITOR OUT
L	L	*	IN1
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	VOUT1
L	L	*	--
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	VOUT2
L	L	*	IN1
H	L	*	--
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

■ BU2092(IC402,IC405):LED Controller

1.Terminal Layout

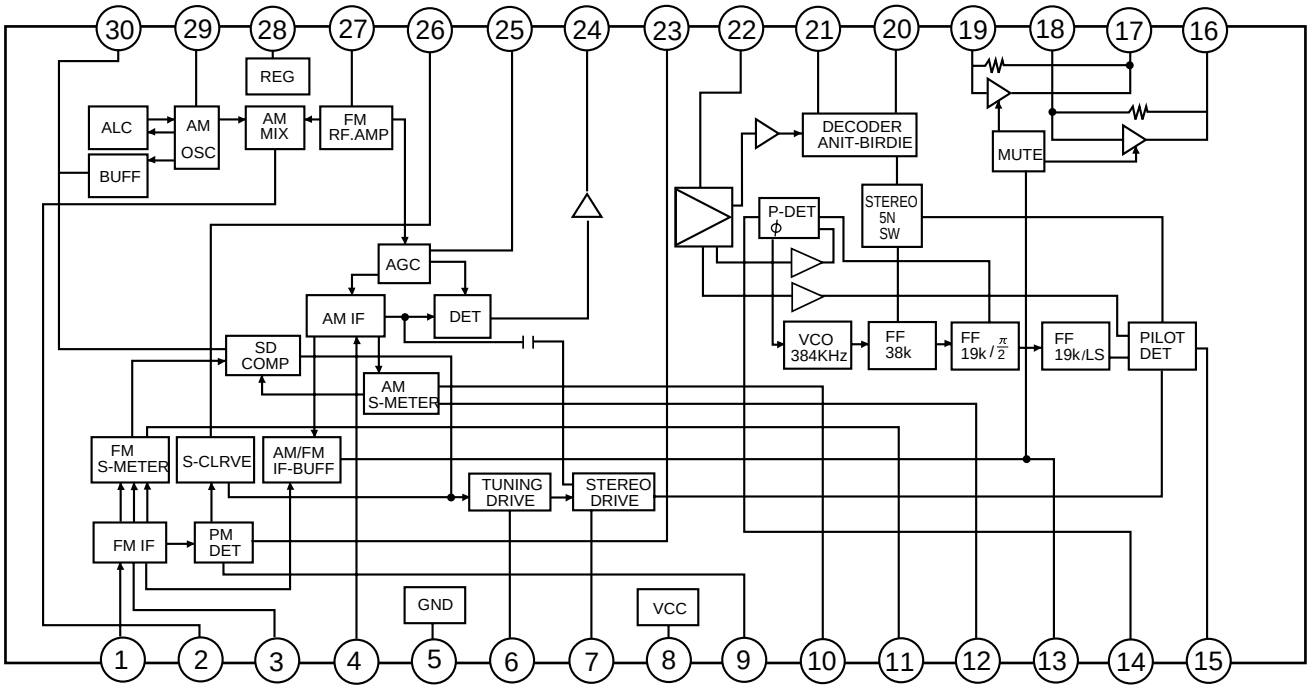


2.Pin Function

Pin No.	Symbol	I/O	Function
1	Vss	-	Connect to GND
2	DATA	I	Serial Data input
3	CLOCK	I	Shift Clock of Data
4	LCK	I	Latch Clock of Data
5~16	Q0~Q11	O	Parallel Data Output Latch Data: L / H OUTPUT: ON / OFF
17	$\overline{OE}$	I	Output Enable
18	Vdd	-	Power Supply

■ LA1838(IC102): FM AM IF AMP&detector, FM MPX Decoder

1. Block Diagram

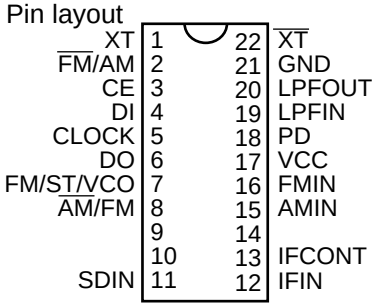


2. Pin Function

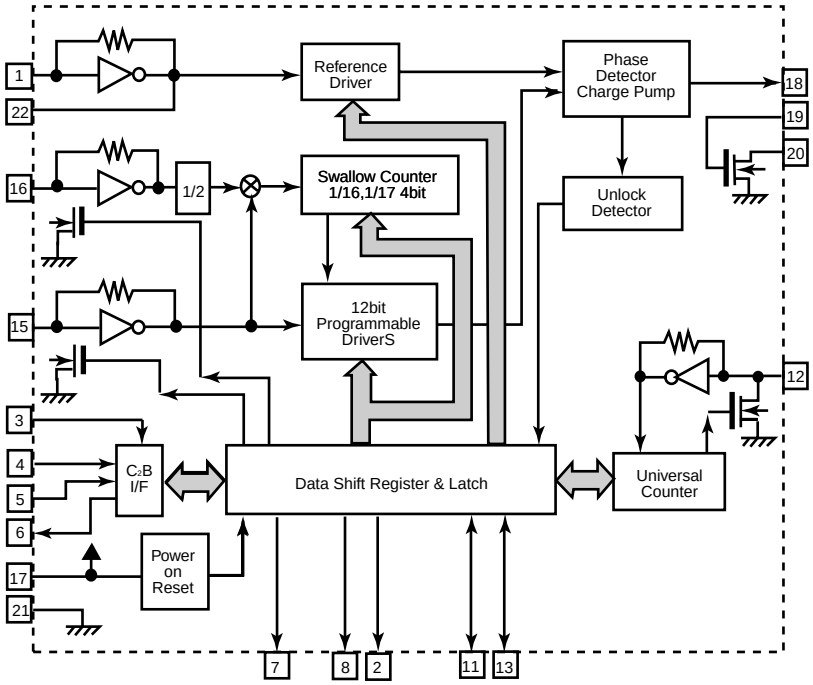
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	R OUT	O	Right channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	L OUT	O	Left channel signal output.
3	FM IF	I	Bypass of FM IF	18	R IN	I	Input terminal of the Right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

■ LC72136N (IC121) : PLL Frequency synthesizer

1. Pin layout



2. Block diagram

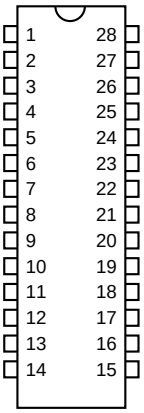


3. Pin function

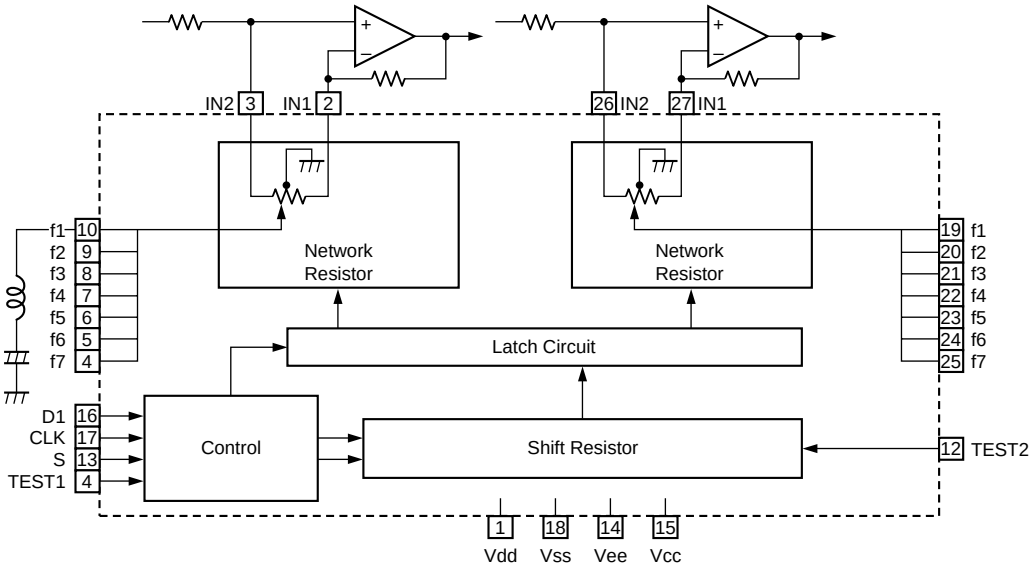
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)	12	IFIN	I	IF counter signal input
2	$\overline{FM}$/AM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14		-	Not use
4	DI	I	Input for receive the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

■ LC7522 (IC451) : SEA Control

1.Pin layout



2.Block diagram

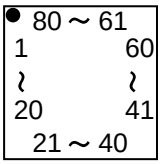


3.Pin function

Pin No.	Symbol	Function
1 18 14 15	V_{DD} V_{SS} V_{EE} V_{CC}	Power Supply terminal for Audio signal +7V(typ) Power Supply terminal 0V Power Supply terminal for Audio signal. Single channel use, joint VSS. Power Supply terminal +5V(typ)
2,27 3,26	IN 1 IN 2	Audio signal Input terminal IN1 joint opposite input of Operation amp. IN2 joint inapposite input of Operation amp. It have Right and Left.
16	D1	Data input terminal from CPU Shumit inverter style
17	CLK	Clock input terminal from CPU Shumit inverter style
4~10 19~25	f1~f7	Joint terminal of B.P.F. f1~f7 X Right, Left Total 14 terminal
11 12	TEST1 TEST2	Internal test terminal of IC It can use open condition
13	S	Select terminal for 2 tip use "1" input, key code 7C3 - VDD joint "0" input, key code 7C2 - VEE joint
28	NC	No use

■ MN101C15FDE (IC401) : System control micon

1. Pin layout

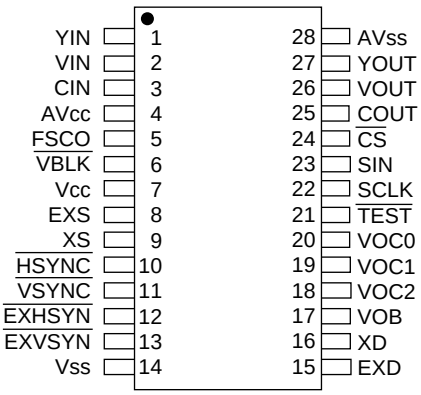


2. Pin function

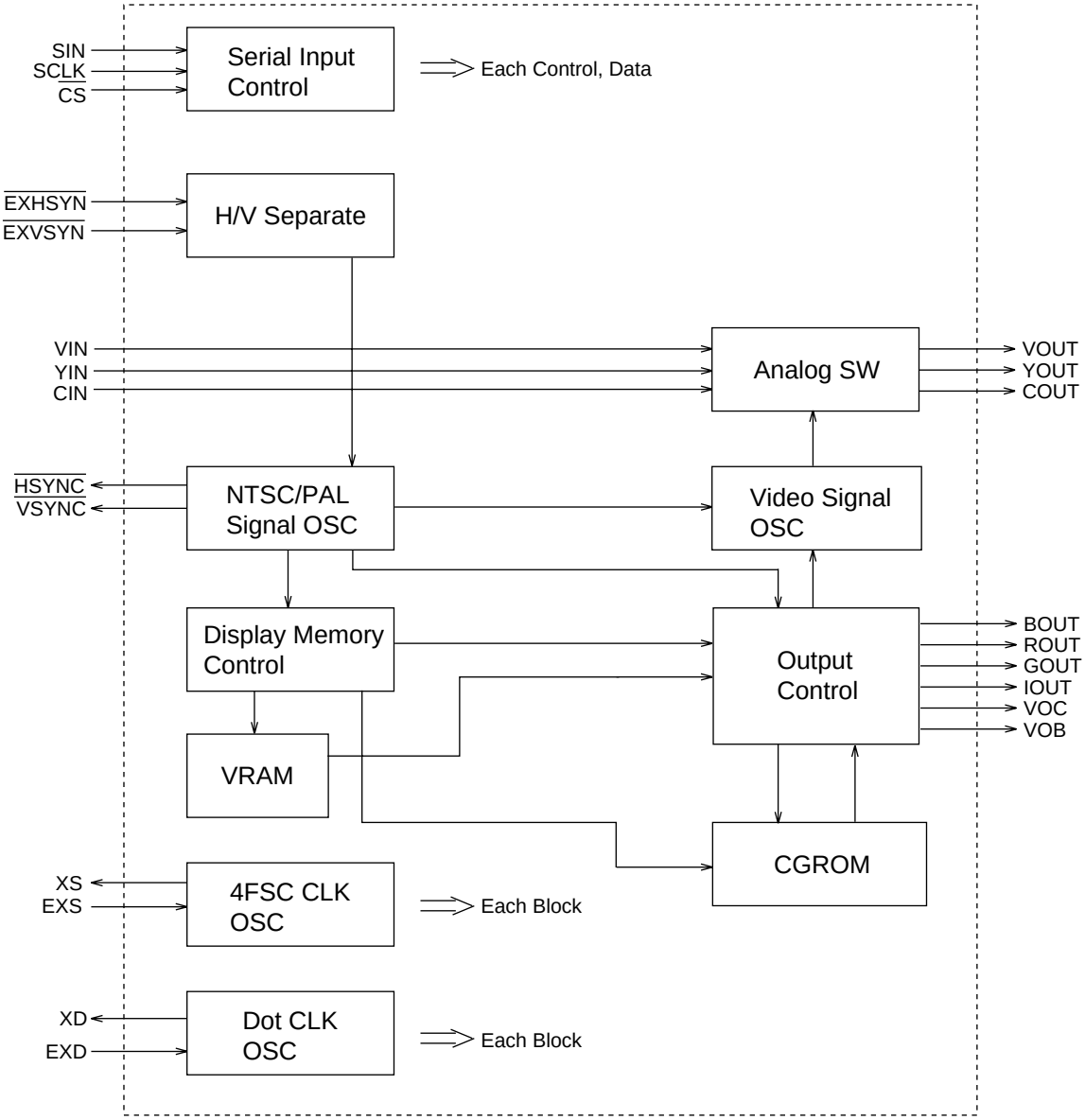
Pin No	Symbol	Functions	Pin No	Symbol	Functions
1	GND	Ground	41	VIDEO3	VIDEO 3 signal terminal
2	DVD-S/C	DVD S/C signal select terminal	42	VIDEO4	VIDEO 4 signal terminal
3	VCR1-S/C	VCR1 S/C signal select terminal	43	S.MUTE	Source mute control terminal
4	VIDEO-S/C	VIDEO S/C signal select terminal	44	————	No use
5	TV-S/C	TV S/C select terminal	45	————	No use
6	4/8-IN	4 ohm / 8 ohm select signal terminal	46	————	No use
7	————	————	47	RDS-DATA	RDS control signal terminal
8	GND	Ground	48	————	No use
9	PROTECT	Protect	49	RDS-CLK	RDS control signal clock
10	GND	Ground	50	DSP-READY	DSP control signal clock
11	VDD	Power supply	51	DSP-RESET	DSP reset signal terminal
12	OSC 12	Oscillation terminal	52	M/CS	Control signal from IC400
13	OSC 11	Oscillation terminal	53	M-RESET	Reset signal from IC400
14	VSS	Ground	54	M-STATUS	Status signal from IC400
15	X1	Ground	55	M-COMMAND	Command signal from IC400
16	X0	No use	56	M-CLK	Clock signal from IC400
17	GND	Ground	57	SEA-CLK	SEA clock signal from terminal
18	TEXT-OUT	Text signal output terminal	58	SEA-DATA	SEA data signal terminal
19	TEXT-IN	Text signal input terminal	59	VL/VH	Connect to power supply board
20	MASTER	Master signal terminal	60	4/8 OUT	4 ohm / 8 ohm select signal terminal
21	DSP-COMMAND	DSP control signal terminal	61	SW-DATA	Switch data signal terminal
22	DSP-STATUS	DSP control signal terminal	62	SW-CLK	Switch clock signal terminal
23	DSP-CLK	DSP control signal terminal	63	VOL-STB	Volume strobe signal terminal
24	————	No use	64	VOL-DATA	Volume data signal terminal
25	RESET-IN	Reset signal input terminal	65	VOL-CLK	Volume clock signal terminal
26	TUNER-CE	Tuner chip enable	66	SW-STB	Switch strobe signal terminal
27	TUNER-CLK	Tuner clock signal terminal	67	————	No use
28	————	No use	68	————	No use
29	TUNER-DATA	Tuner control signal terminal	69	FR1-RELAY	Relay 1 signal terminal
30	TUNER-MUTE	Tuner mute signal terminal	70	FR2-RELAY	Relay 2 signal terminal
31	TUNER-IN	Tuner signal input terminal	71	CNTR-RELAY	Center speaker relay terminal
32	STEREO-IN	Stereo signal input terminal	72	SUR-RELAY	Surround speaker relay terminal
33	RDS-ST	Data start signal for block data to output serial data.	73	SUB-MUTE	SUB woofer out mute control
			74	LED-LCK2	LED latch clock signal terminal
34	M-BUSY	Busy signal from IC400	75	C.TONE3	Center tone 3 signal terminal
35	INH	Inhibit signal input	76	C.TONE2	Center tone 2 signal terminal
36	OSD-DATA	OSD data signal input terminal	77	C.TONE1	Center tone 1 signal terminal
37	OSD-STB	OSD standby signal terminal	78	LED-LCK1	LED latch clock signal terminal
38	OSD-CLK	OSD clock signal terminal	79	LED-DATA	LED data signal terminal
39	VIDEO1	VIDEO 1 signal terminal	80	LED-CLK	LED clock signal terminal
40	VIDEO2	VIDEO 2 signal terminal			

■ MB90088PF-131 (IC203) : On screen display controller

1.Terminal layout



2.Block diagram

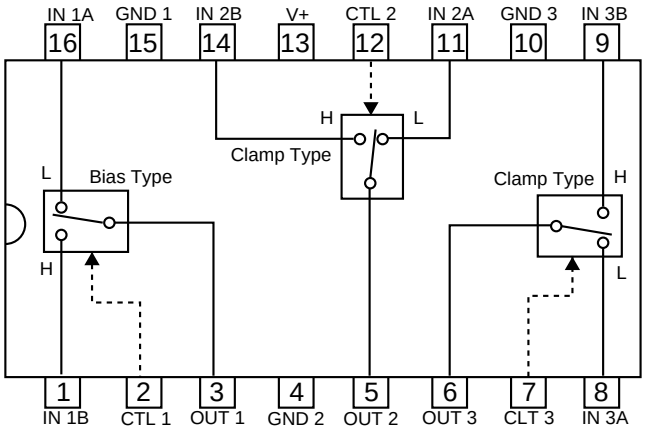


3.Pin functions (MB90088PF-131)

pin no	Symbol	I/O	Function
1	YIN	I	Brightness signal Input terminal for Superinpause indication
2	VIN	I	Composite video signal input terminal for Superinpause indication
3	CIN	I	Contrast signal input terminal for Superinpause indication
4	AVcc	-	Analog power supply terminal
5	IOUT	O	Color (Brightness) signal output terminal
6	VOC	O	Character output terminal
7	Vcc	-	Power supply terminal
8	EXS	I	Clock generater outside circuit terminal for color burst
9	XS	O	
10	$\overline{\text{HSYNC}}$	O	Horizontal signal output terminal
11	$\overline{\text{VSYNC}}$	O	Vertical signal output terminal
12	$\overline{\text{EXHSYN}}$	I	EXT horizontal signal input terminal
13	$\overline{\text{EXVSYN}}$	I	EXT vertical signal input terminal
14	Vss	-	GND
15	EXD	I	Dot clock generater outside circuit signal terminal for indication
16	XD	O	
17	VOB	O	Character & background signal output terminal
18	GOUT	O	Color signal (Green, Red, Blue)
19	ROUT		
20	BOUT		
21	$\overline{\text{TEST}}$	I	Test signal input terminal
22	SCLK	I	Shift clock input terminal for serial transmission
23	SIN	I	Serial data input terminal
24	$\overline{\text{CS}}$	I	Chip select terminal
25	COUT	O	Contrast signal output terminal
26	VOUT	O	Composite video signal output terminal
27	YOUT	O	Brightness signal output terminal
28	AVss	-	Analog GND terminal

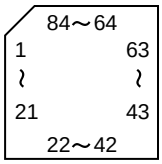
■ NJM2285D (IC202) : Video switch

1.Terminal layout & Block diagram



■ MN173222DG(IC400):FL Display & Operation switch control

1.Pin layout



2.Key matrix

	KEY OUT 0	KEY OUT1	KEY OUT 2	KEY OUT 3	KEY OUT 4	KEY OUT 5
KEY IN 0	POWER	ANALOG/ DIGITAL	SEA ADJUST	FM/AM TUNING	DISPLAY MODE	ONE TOUCH OPERATION
KEY IN 1	SURROUND	DSP MODE	FM MODE	TUNER PRESET	TA/NEWS/INFO	————
KEY IN 2	SPEAKER 1	LOUDNESS	LEVEL ADJUST	MEMORY	EON	————
KEY IN 3	SPEAKER 2	SEA MODE	SOUND SELECT	SETTING	PTY SEARCH	————

3.Pin function

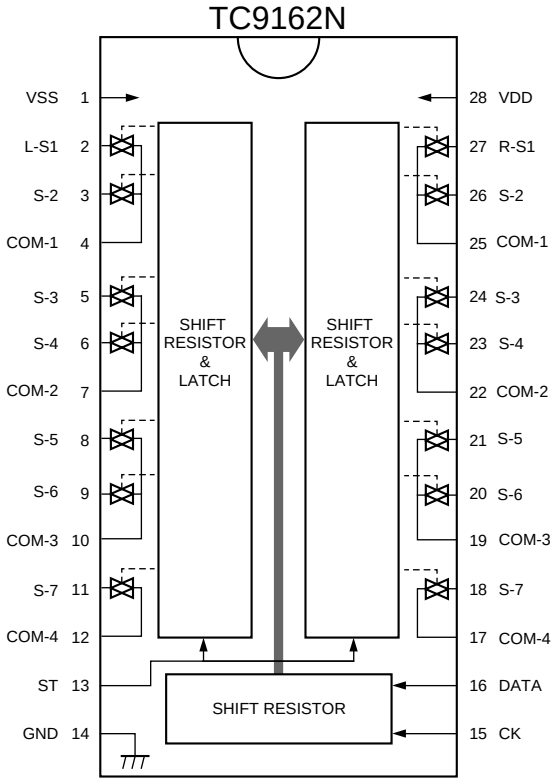
Pin No.	Symbol	I/O	Description
1~22	S22~S1	O	FL Segment control signal
23	VPP	-	Power supply terminal
24~39	G15~G1/KO0~5	O	FL grid control signal / Key matrix output
40,41	JOG1,2	I	Source select JOG1,2
42,43	JOG3,4	I	Volume JOG 3,4
44	M BUSY	O	BUSY Signal output to IC401
45	M CLK	I/O	Clock signal to IC401
46	M COMMAND	I	Command data input from IC401
47	M STATUS	O	Status signal output to IC401
48	M CS	I	Chip select signal input from IC401
49	RM	I	Remote control signal input
50	VCRI	I	AV Compu-link VCR input
51	DCSI	I	AV Compu-link DCS input
52	DCSO	O	AV Compu-link DCS output
53	VCRO	O	AV Compu-link VCR output
54	TVD	O	AV Compu-link TV output
55	TVC	O	AV Compu-link TV control output
56,57	JOG5,6	I	Multi JOG 5,6
58	POWER	I	Power ON control output
59		O	STANDBY LED control H:Lighting
60~63	KI3~KI0	I	Key matrix input
64~67	S36~S33	O	FL Segment control signal
68	RST	I	Reset input
69	X1	-	Connect to GND
70	X2	-	Non connect
71	VSS	-	Connect to GND
72	OSC2	-	Oscillation terminal 6MHz
73	OSC1	-	Oscillation terminal 6MHz
74		-	Not use
75~84	S32~S23	O	FL Segment control signal

■ TC9162AN (IC321): Analog switch

1.Function

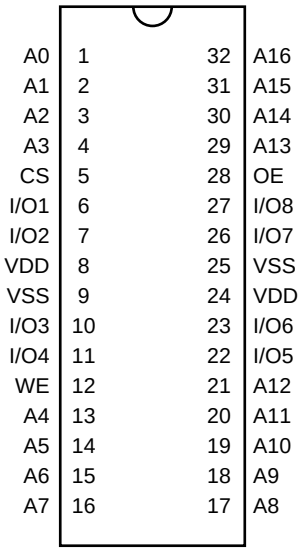
Switch to On/Off of S1 to S8 by control of LSI.

2.Terminal Lay out & Block Diagram

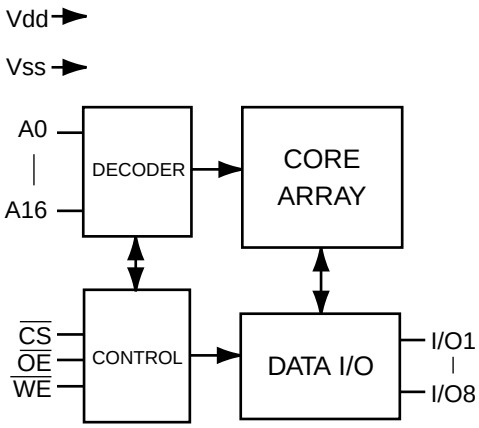


■ W24L011AJ-15(IC641):SDRAM

1.Pin layout



2.Block diagram



3.Pin function

Symbol	Description
A0~A16	Address inputs
I/O1~I/O8	Data inputs/outputs
CS	Chip select inputs
WE	Write enable input
OE	Output enable input
Vdd	Power supply
Vss	Ground

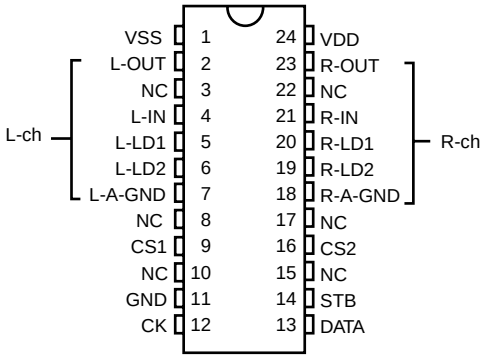
■ TC9446F-014(IC631):Digital signal processor for dolby digital / DTS audio decode

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

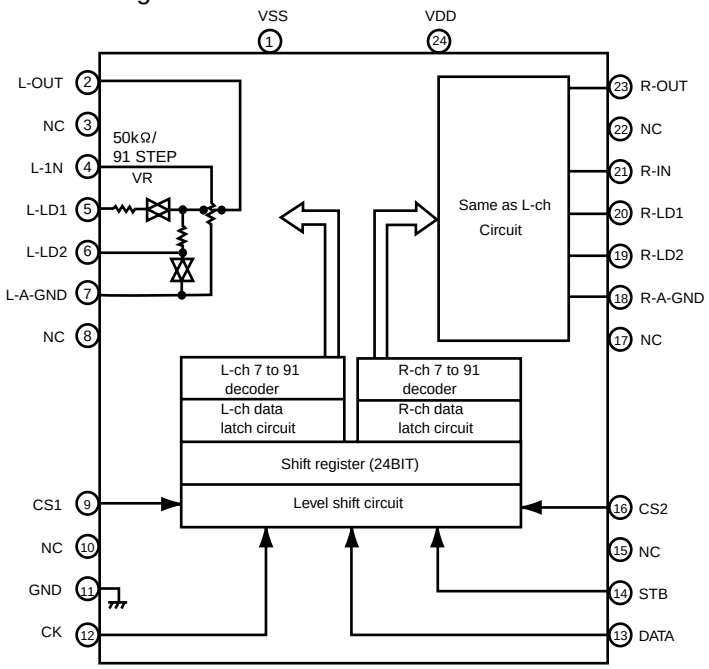
DLCKS terminal	DLONterminal	DLL clock setting
L	L	SCKI input (DLL circuit OFF)
L	H	Four times XI clock
H	L	Three times XI clock
H	H	Six times XI clock

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

1.Pin layout



2. Block diagram

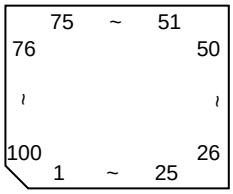


3.Pin function

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

■ 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		-	Power supply terminal
37,38	RX,TX	-	Not use
39		-	Non connect
40	DSPCOM	I	Communication port from IC401
41	DSPSTS	O	Status communication port to IC401
42	$\overline{\text{DSPCLK}}$	I	Clock input from IC401
43	DSPRDY	I	Ready signal input from IC401
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

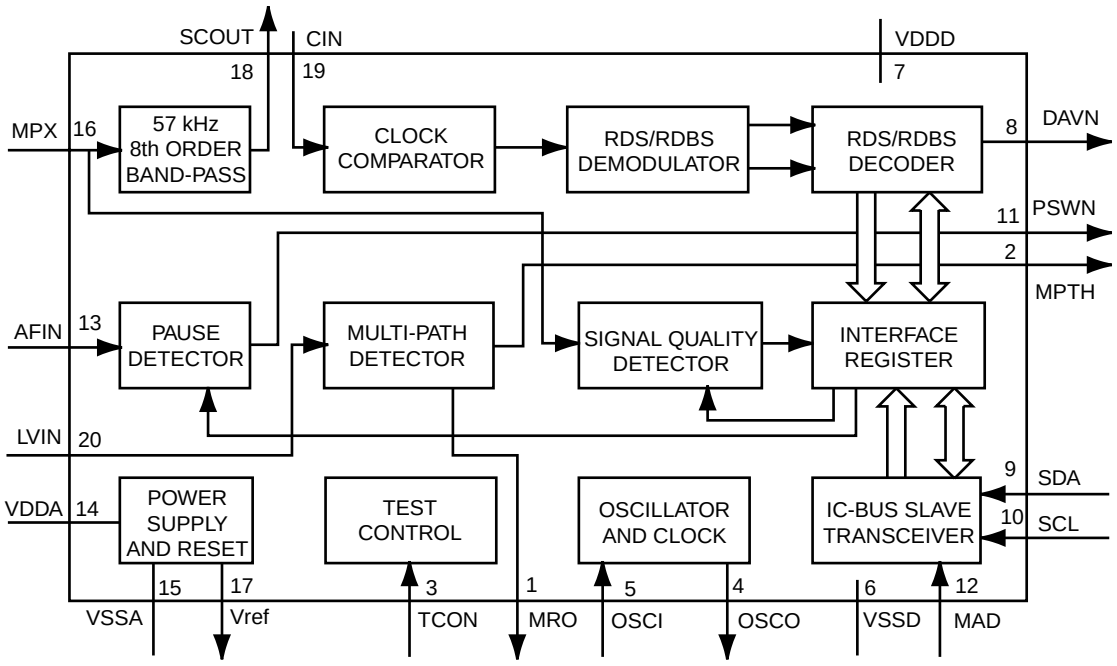
■ SAA6588 (IC191) : RDS Detector

1.Terminal Layout

2.Pin Function

Pin No.	Symbol	I/O	Function
1	MRO	O	Multi-path rectifier output
2	NC	-	Non connect
3	GND	I	Test control input pin
4	OSCO	O	Oscillator output
5	OSCI	I	Oscillator input
6	VSSD	-	Digital ground (0V)
7	VDDD	-	Digital power supply (5V)
8	DAVN	O	Data available output (active LOW)
9	SDA	I/O	IC-bus serial data I/O
10	SCL	I	IC-bus serial clock input
11	NC	-	Non connect
12	GND	-	Connect to ground
13	NC	-	Non connect
14	VDDA	-	Analog power supply (5V)
15	VSSA	-	Connect to ground
16	MPX	I	Multiplex input signal
17	Vref	O	Reference voltage output
18	SCOUT	O	Band-pass filter output
19	CIN	O	Comparator output
20	NC	I	Level input

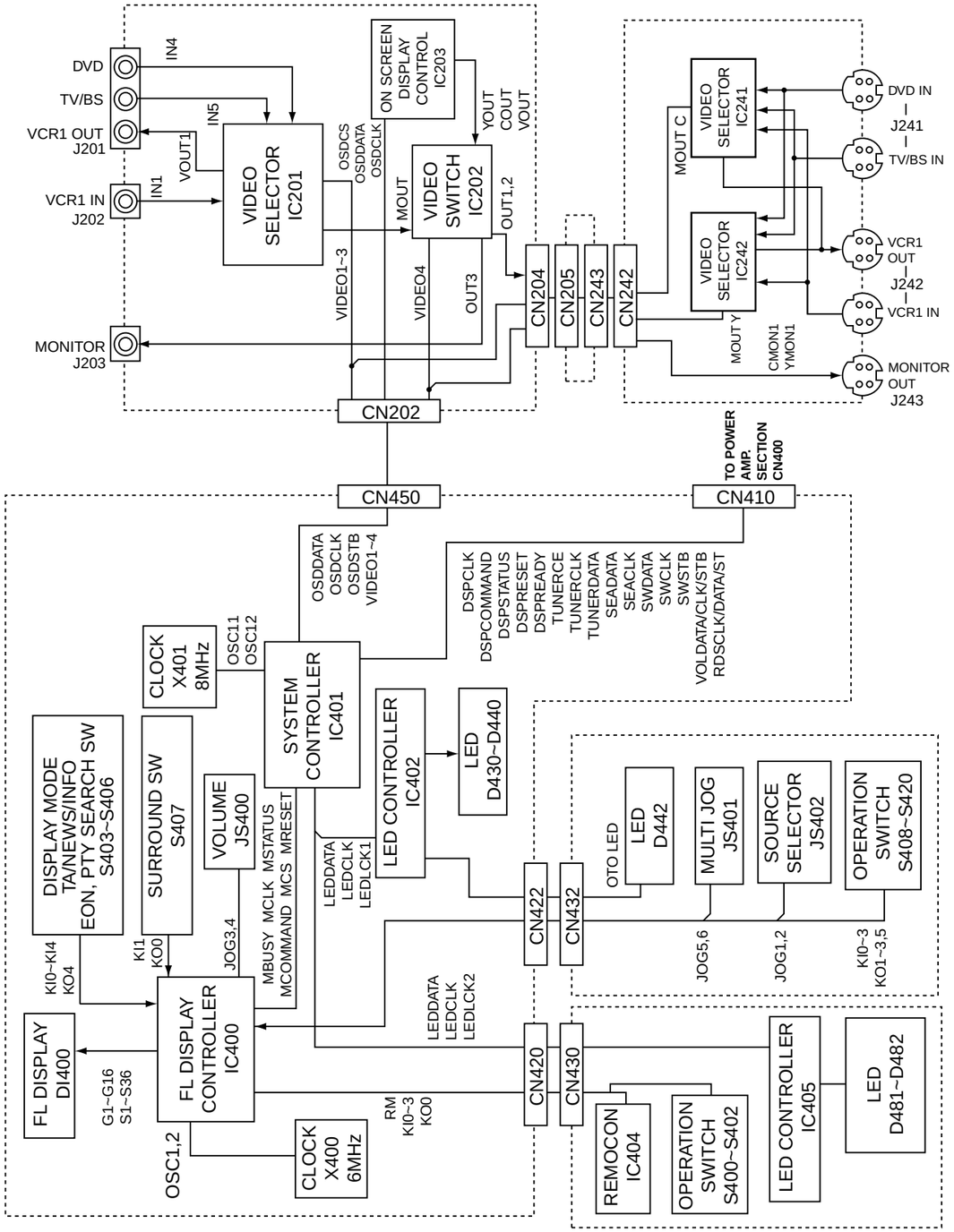
3.Block Diagram



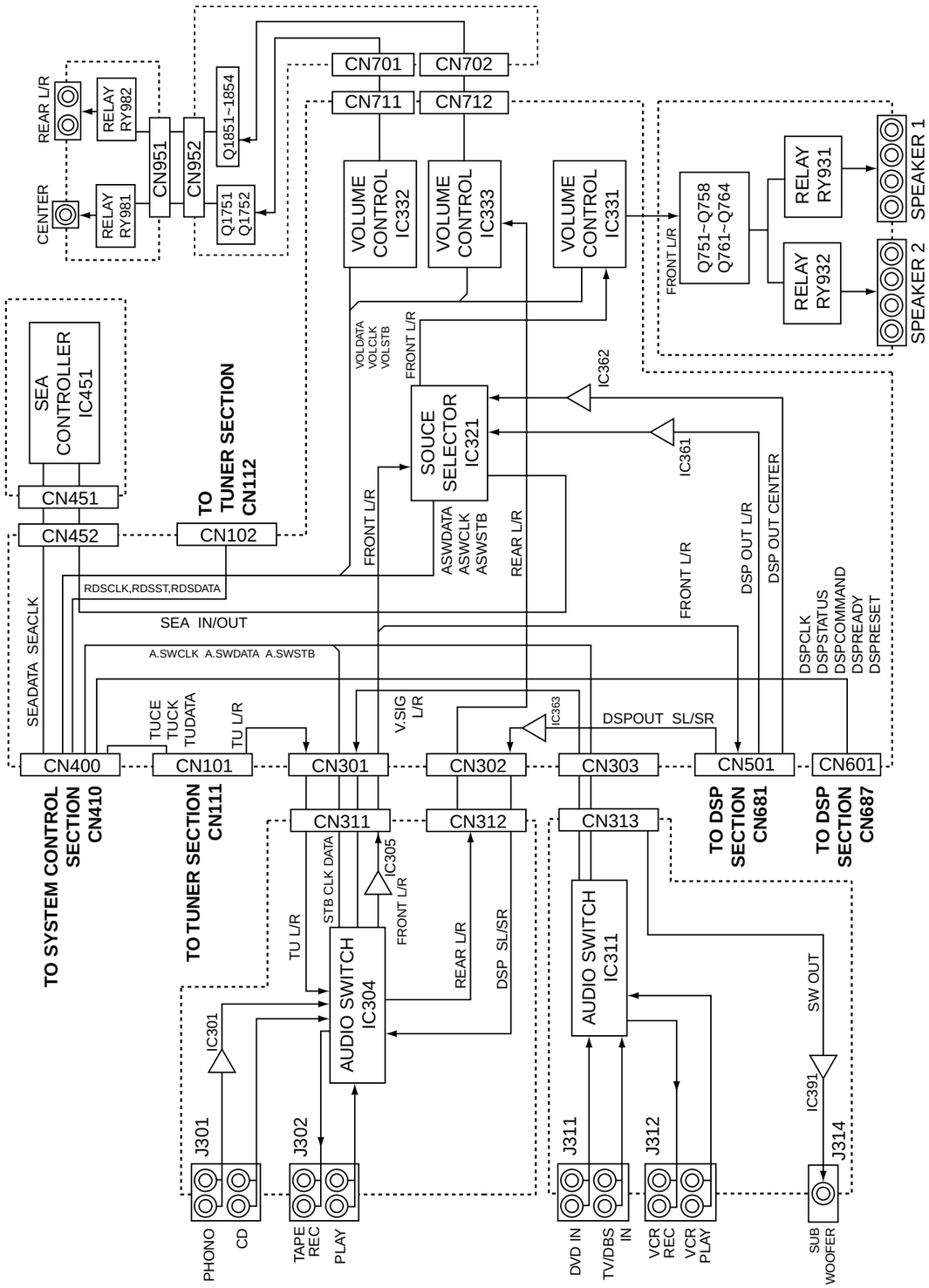
<<MEMO>>

Block diagrams

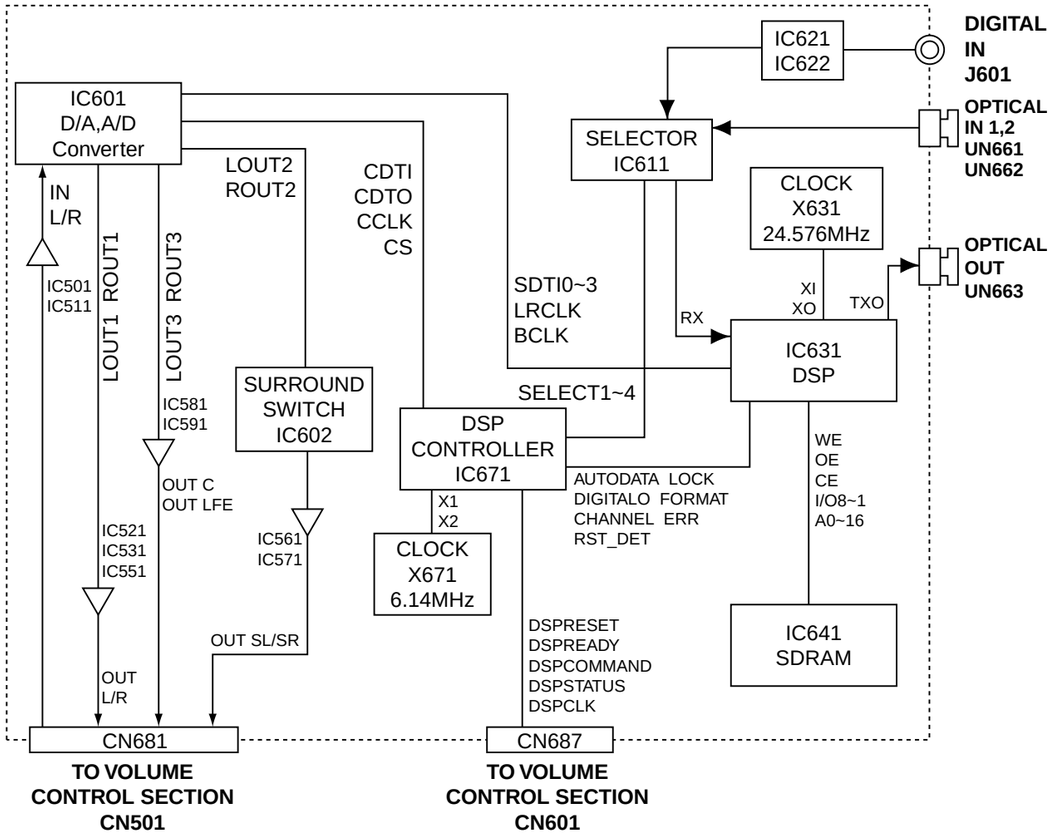
■ System control & Video I/O section



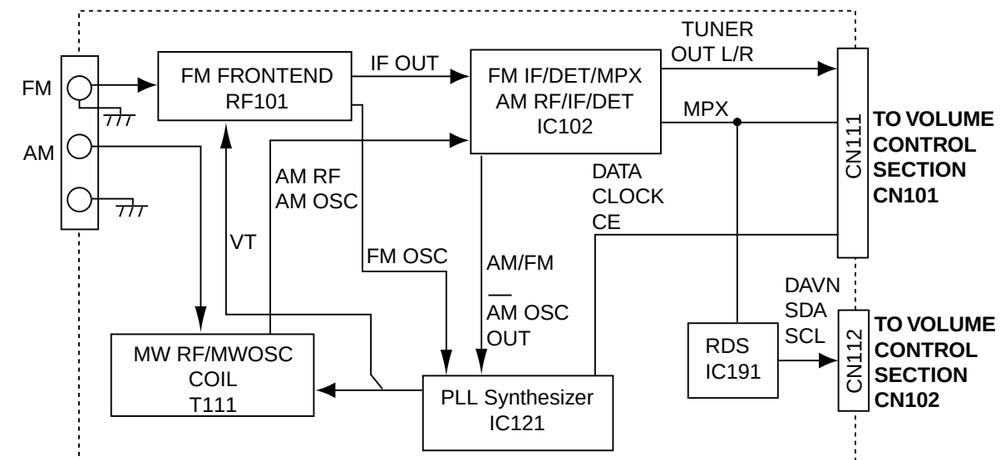
■ Power amplifier & Audio I/O section



■ DSP Section



■ Tuner section



Standard schematic diagrams

■ Power supply section

B / E / EN

LVA10131-1

LVA10131-2 POWER TRANSFORMER LVA10131-5

LVA10131-3

CN402
21 MASTER/SLAVE
20 TEXT
19 COMPULINK
18 AVCOMPUVCR
17 AVCOMPUTV
16 4/8IN
15 4/8OUT
14 PROTECT
13 HPRELAY
12 SRELAY
11 CRELAY
10 FBRELAY
9 FARELAY
8 VH/VL
7 POWER
6 F1
5 -VPP
4 F2
3 D. GND
2 B+5V
1 5V

TO CN412 OF LVA10131-1

LVA10016-8
CN73 CN63
CN53
MASTER/SLAVE
TEXT
COMPULINK
AVCOMUVCR
AVCOMPUTV
TO CN83 OF LVA10163-1

LVA10016-7
CN72 CN62
CN52
4/8IN
4/8OUT
PROTECT
HPRELAY
SRELAY
CRELAY
FBRELAY
FARELAY
TO CN82 OF LVA10163-1

LVA10016-6
CN71 CN61
CN51
B2
A. GND
-B2
5V
SHUT
HPL
HPGND
HPR
TO CN81 OF LVA10163-1

CN811
S1
COM
S1
TO CN811 OF LVA10163-1

131 132 113 112 111 123 122 121 134 133

PW13 PW20 PW16 PW26 PW28 PW18 PW29 PW19 PW40 PW30

F61 T2A
F62 T2A
R61 0.22 UNF. MF(1W)
R62 0.22 UNF. MF(1W)
S2 COM S2 S3 S3
CN55 CN56
TH. FUSE
F1 T2.5A
F2 T100mA
TA1 TA2
LIVE/ BRN
NEUTRAL/ BLU
MAINS PLUG
AC230V/50Hz
FW51

R67 12 UNF (1/4W)
R68 5.6K
R69 8.2K
D61 10E2-FD
D62
D63 10E2-FD
D64
1SR35-400A
C61 0.1MY (100V)
C62 0.1MY (100V)
C63 0.1MY (100V)
D65 1SS133
C67 4.7/50
R70 10K
R55 1 UNF. OMF (2W)
R66 2.2 UNF (1/4W)
C65 3300/35
C66 2200/35
C70 220/50
Q16 KRC107M
VH/VL
C68 0.047MY
C69 0.047MY
Q74 Q72 Q71
2SC2240/GL
KRC102M
2SB1357/EF
R74 100K POWER
C74 150
D75 MTZ6.2JC
KRA104M
C73 22/50
R72 3.3K UNF (1/4W)
C71 220/63
D73 1SR139
D71 1SR139
D72 1SR139
THT1 QAD0095-4R7
R73 22K
D74 MTZ33JC
C72 22/50

T2 QQT0281-002
C51 0.0047/100
0.0047
RY1 QSK0098-001
D52 1SR35-400A
D51 1SR35-400A
D53 1SR35-400A
D54 1SR35-400A
D57 1SS133
C52 1000/25
R53 18 UNF. RES. (1/4W)
Q53 KRC105M
Q52 2SC2235(O,Y)
R54 820
C55 0.0047
C54 470/16
D56 MTZ6.2JA

R91470 UNF. OMF (2W)
R92 470 UNF. OMF (2W)
C94 330P
C93 330P
J91
EP51
EP2

VERSION CODES	
EN:	NORDIC COUNTRIES
E:	CONTINENTAL EUROPE
B:	U.K.
US:	SINGAPORE
UT:	TAIWAN
UF:	CHINA
A:	AUSTRALIA
U:	UNIVERSAL EXCEPT ALL OF ABOVES

SHEET NUMBER	CIRCUIT DISCRIPTION
1/8	PRIMARY / RECTIFIRE
2/8	VOLUME (FRONT/CENTER/REAR ch.) / SEA / SOURCE SELECT IC
3/8	AUDIO AMP (FRONT ch.) / SPEAKER TERMINAL (FRONT ch.) / REGULATOR / RECTIFIRE
4/8	AUDIO AMP (CENTER/REAR ch.) / SPEAKER TERMINAL (CENTER/REAR ch.)
5/8	AUDIO SIGNAL INPUT TERMINAL / SOURCE SELECT IC / SYSTEMCONTROL SIGNAL TERMINAL
6/8	VIDEO SIGNAL INPUT TERMINAL / SOURCE SELECT IC
7/8	USER CONTROL KEYS / SYSTEMCONTROL LSI / FL DISPLAY
8/8	SURROUND IC / DIGITAL SIGNAL INPUT TERMINAL

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

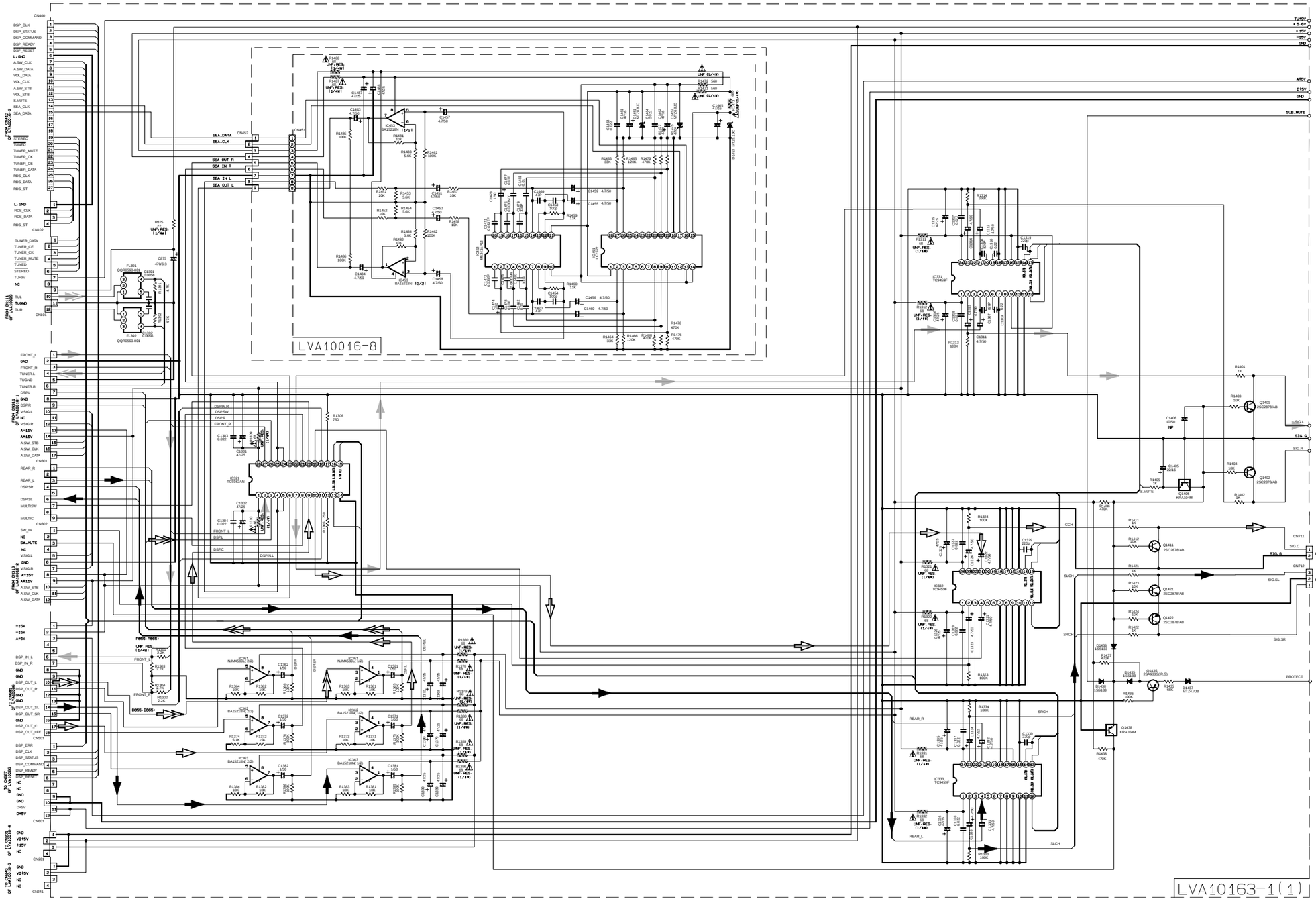
NOTES:
MARK(*) IS TO SHOW DEVIATION IN VERSIONS.
DETAILS ARE EXPLAINED NEAR THE MARK.

EXPLANATION OF OVERALL OF SCHEMA.
RX-7000VBKU/RX-7001VGD/RX-7000PBK/RX-7001PGD/RX-7000RBK

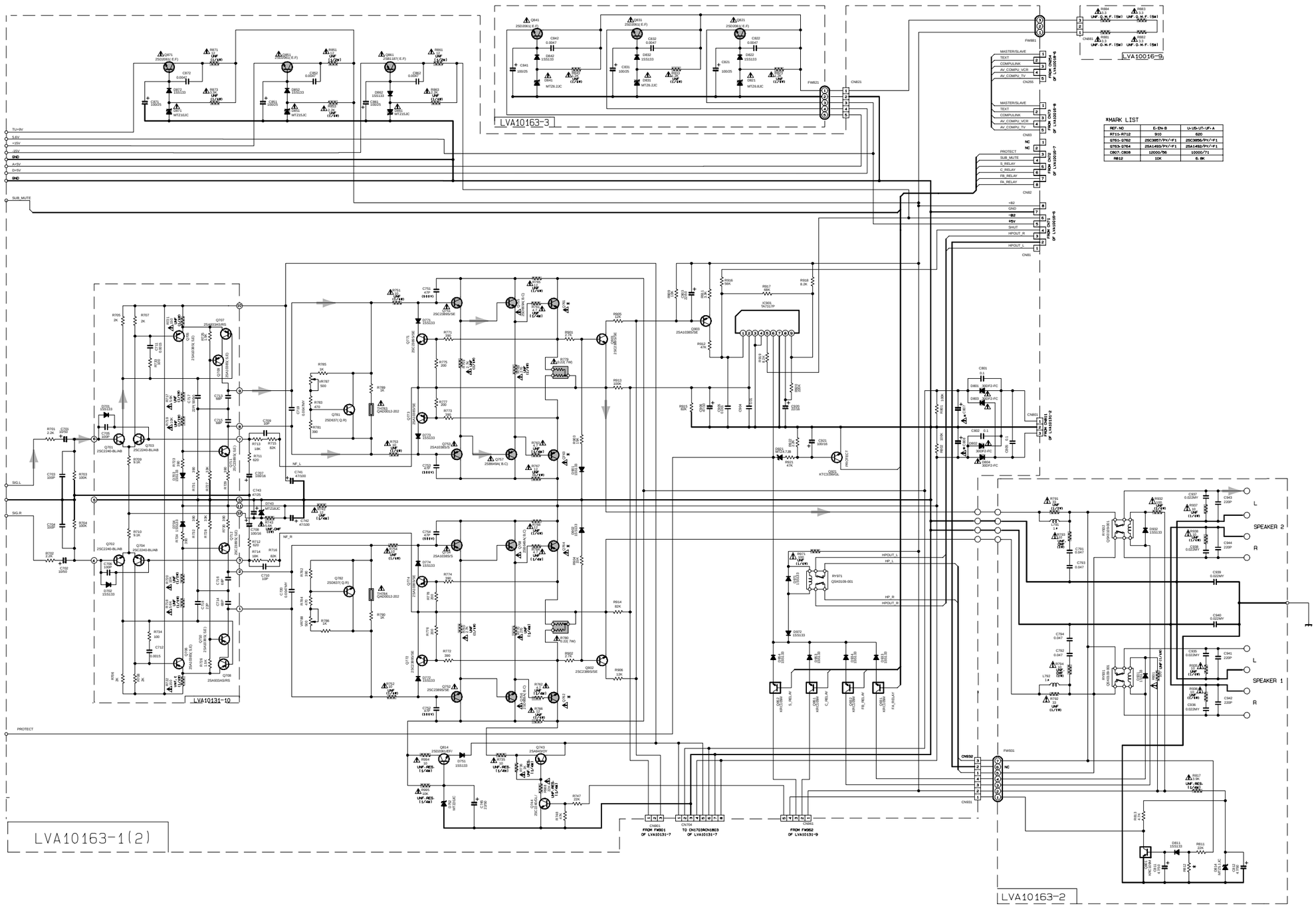
MODEL
RX-7000VBK / RX-7001PGD / RX-7000RBK

SHEET
1

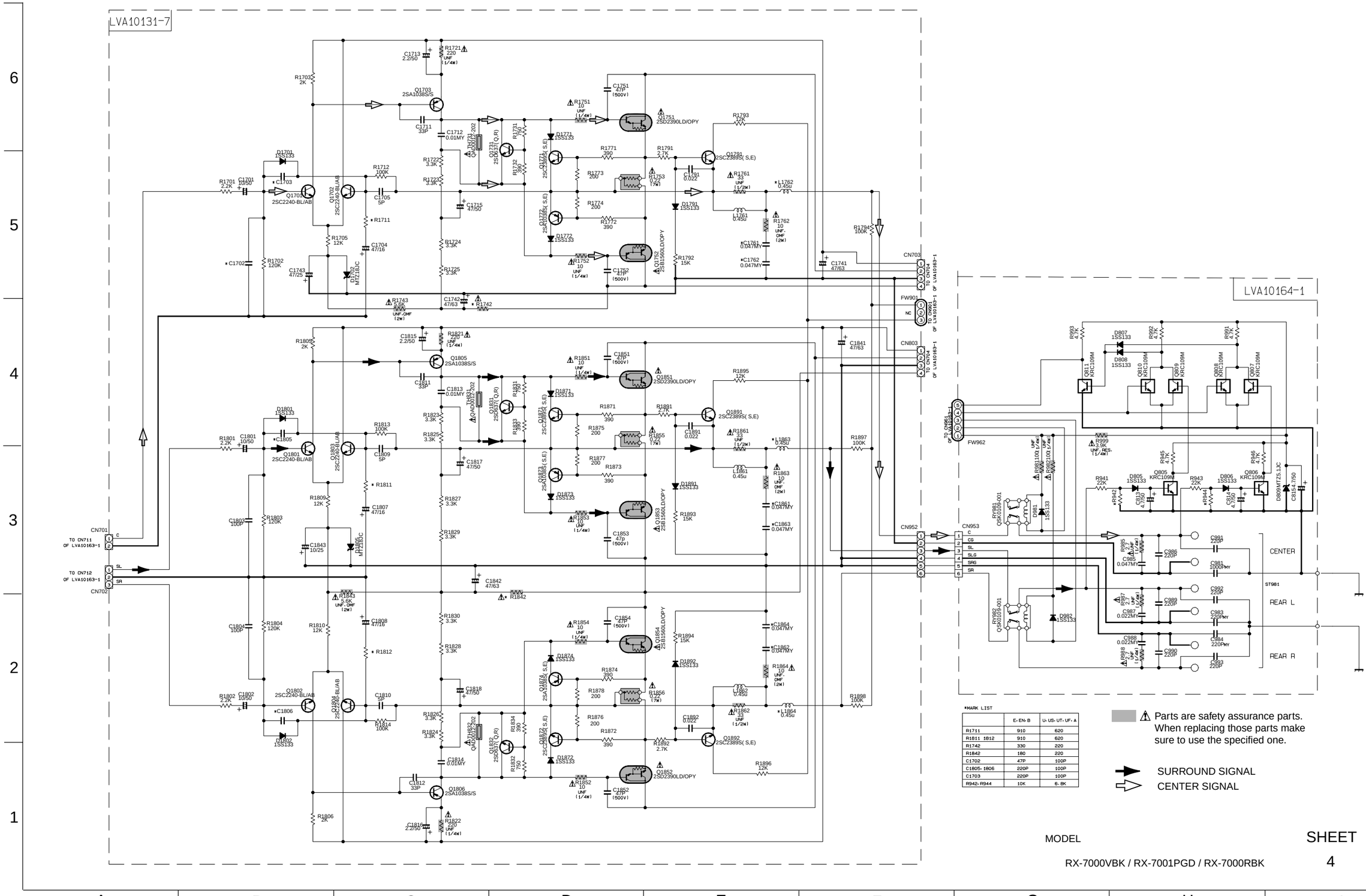
■ Main amplifier section 1/2



■ Main amplifier section 2/2



■ Center / Rear amplifier section



*MARK LIST

	E-EN-B	U-US-UT-UF-A
R1711	910	620
R1811 1812	910	620
R1742	330	220
R1842	180	220
C1702	47P	100P
C1805 1806	220P	100P
C1703	220P	100P
R942 R944	10K	6.8K

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

SURROUND SIGNAL

CENTER SIGNAL

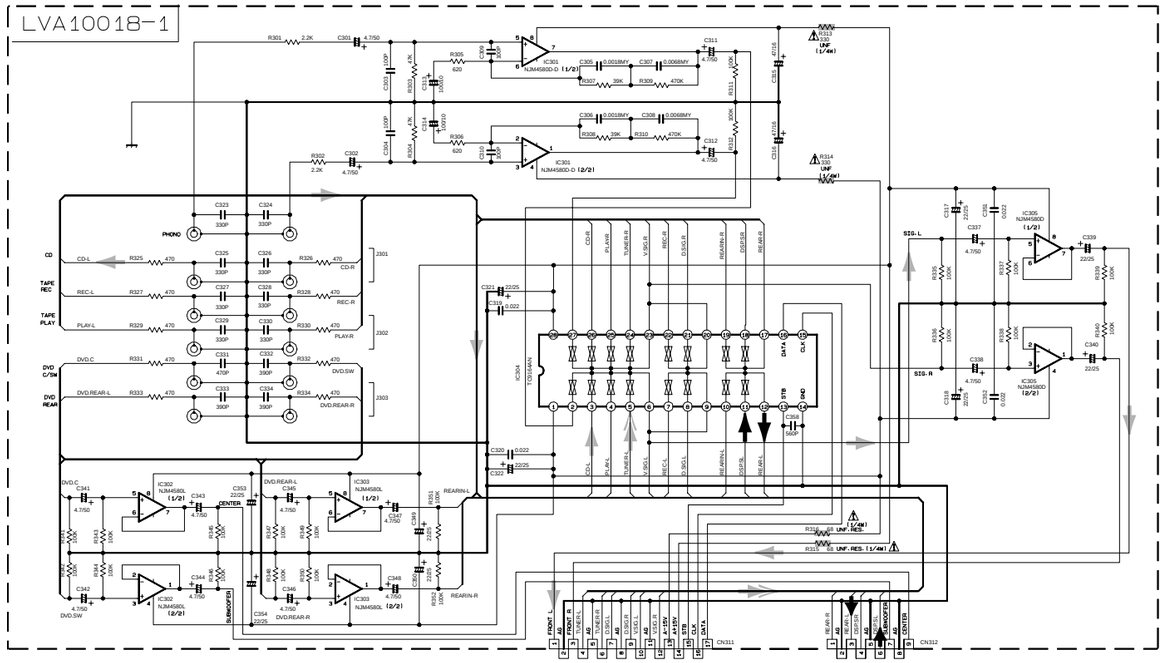
MODEL

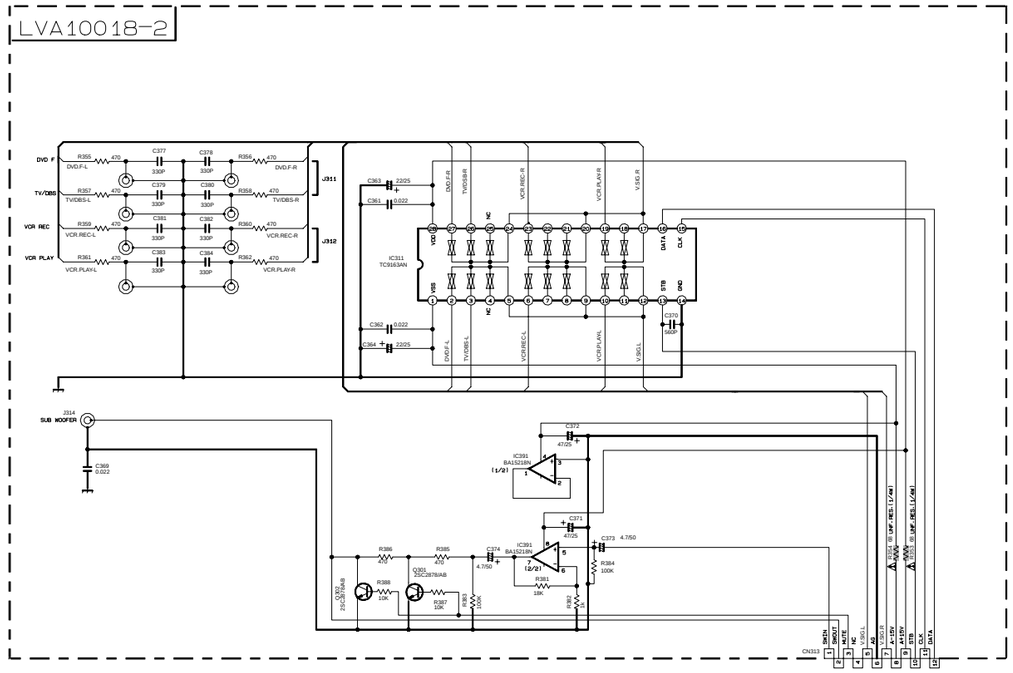
RX-7000VBK / RX-7001PGD / RX-7000RBK

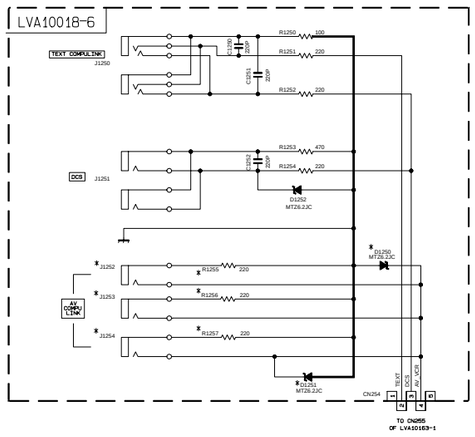
SHEET

4

■ Audio signal section







*MARK LIST

REF. NO	E, EN, Be, A	U, US, UT, UF
J1252, J1253, J1254	NONE	USED
R1255, R1256, R1257	NONE	USED
D1250	NONE	USED
D1251	NONE	USED

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

CD/AUDIO SIGNAL
TUNER SIGNAL
SURROUND SIGNAL

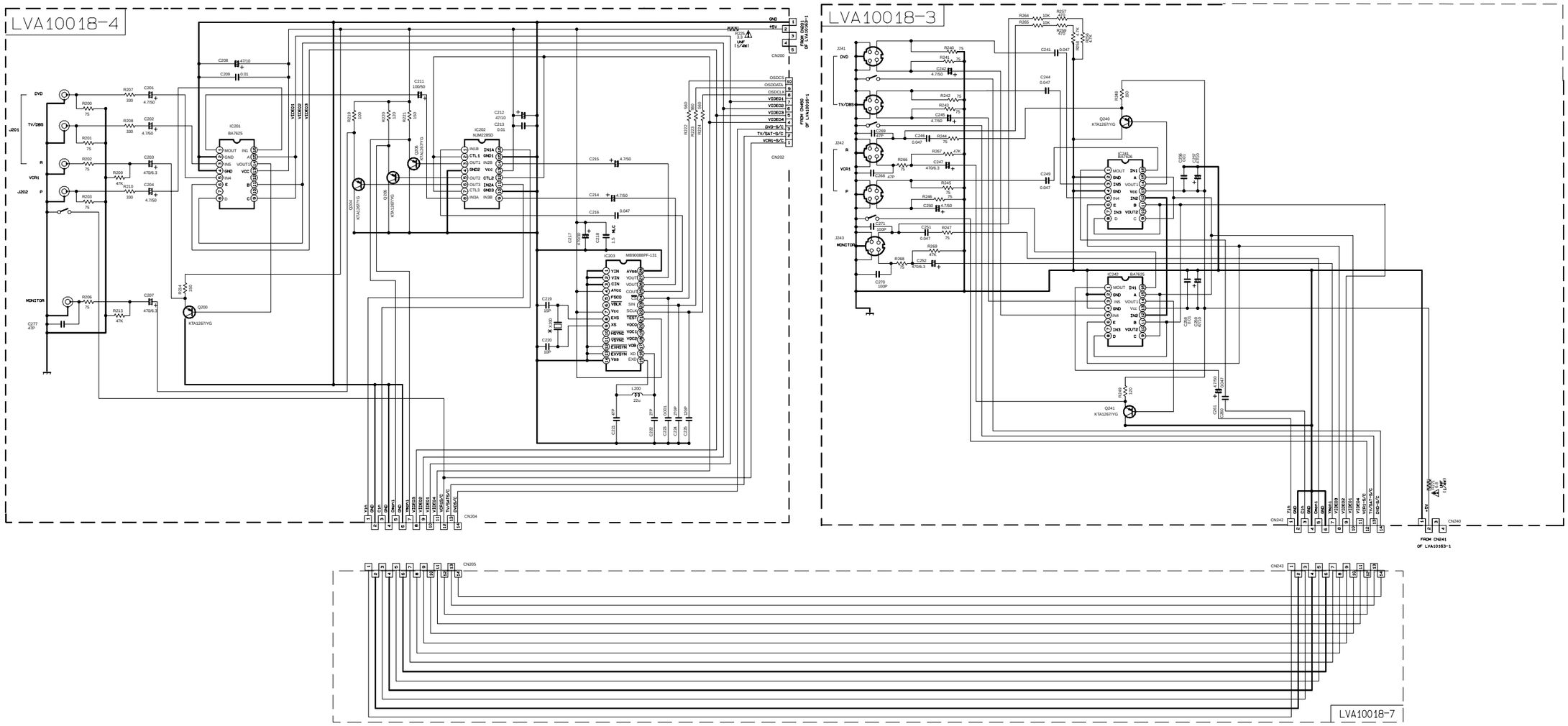
MODEL

RX-7000VBK / RX-7001PGD / RX-7000RBK

SHEET

5

■ Video signal section



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

∗MARK LIST

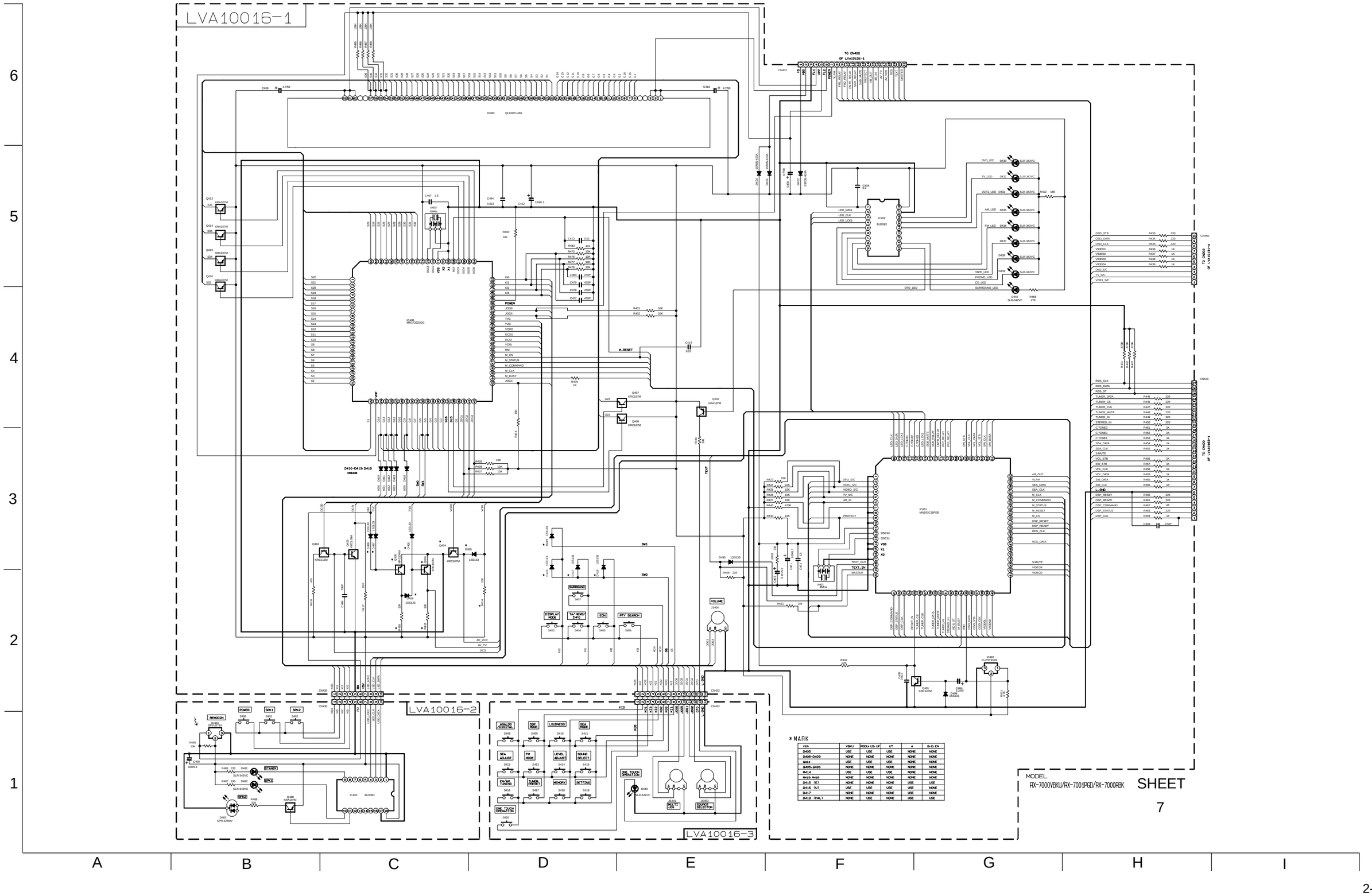
	VBKU, UT	PGDU, B, E, EN, US, UF, A
X200	QAX0260-001Z	QAX0261-001Z

MODEL

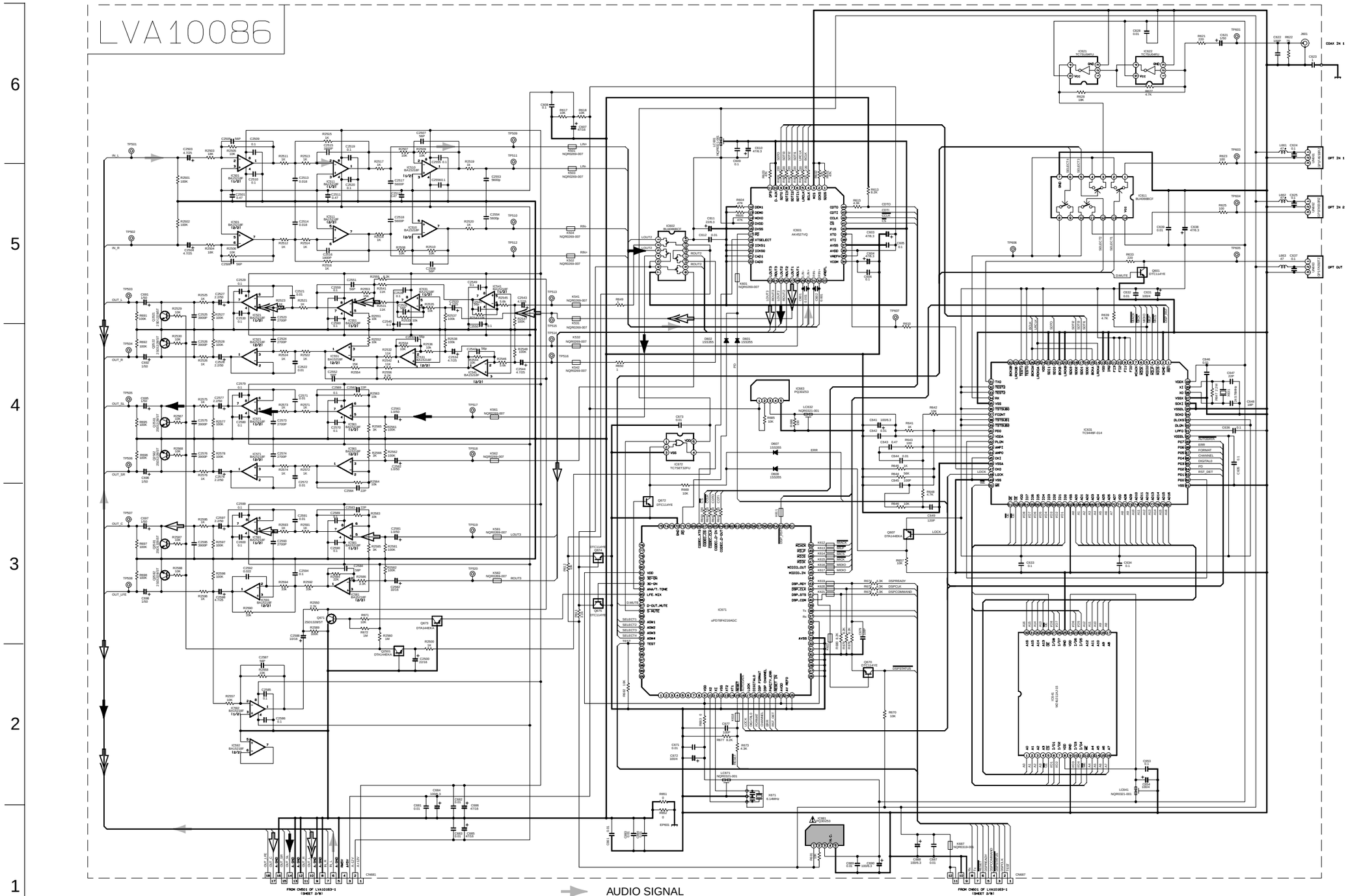
RX-700VBKU / RX-7001PGD / RX-7000RBK

SHEET 6

■ FL Display & System control section



■ DSP section



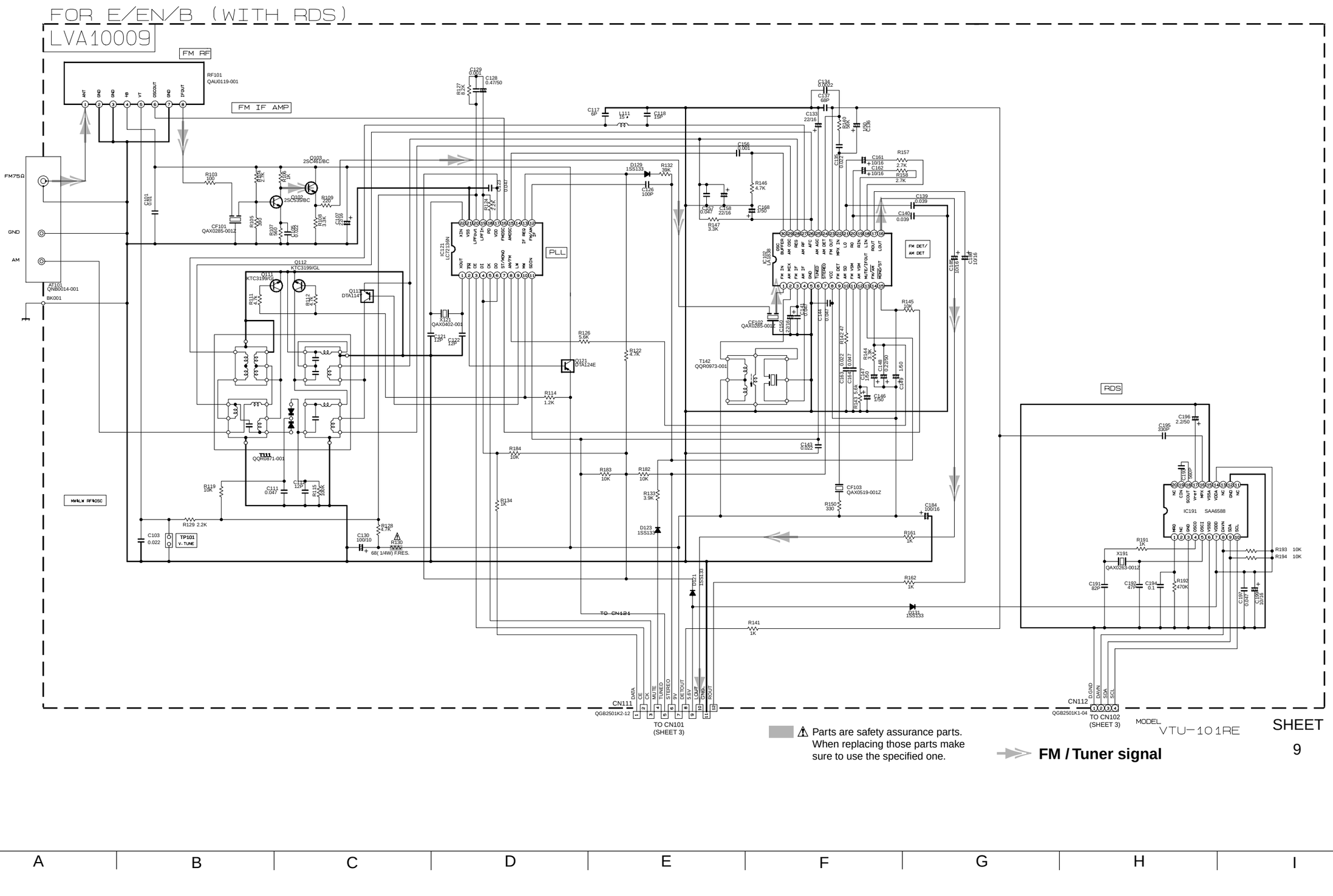
AUDIO SIGNAL
SURROUND SIGNAL
CENTER SIGNAL
FRONT SIGNAL

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

MODEL
RX-7000VBK / RX-7001PGD / RX-7000RBK

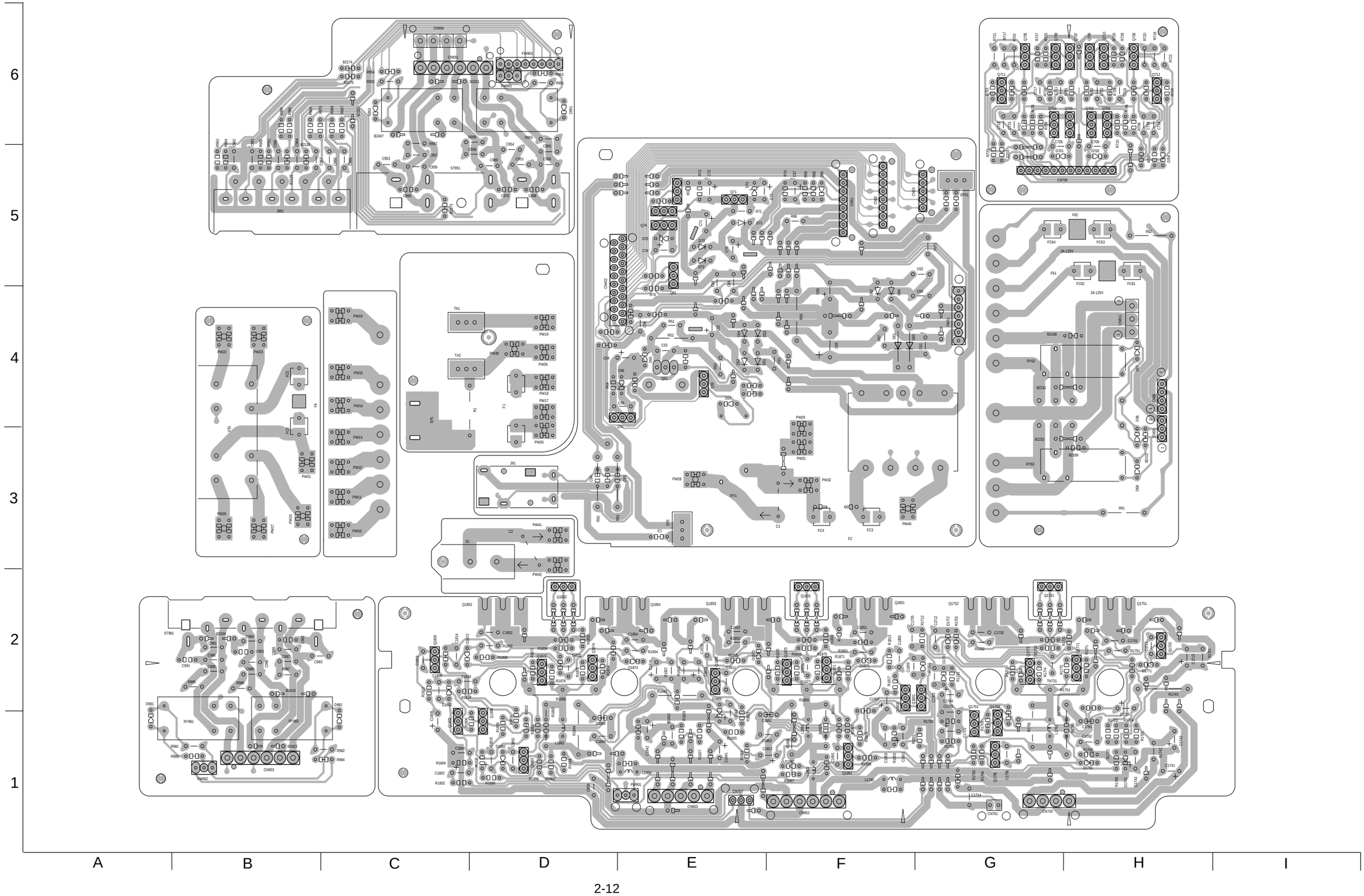
SHEET
8

■ Tuner section

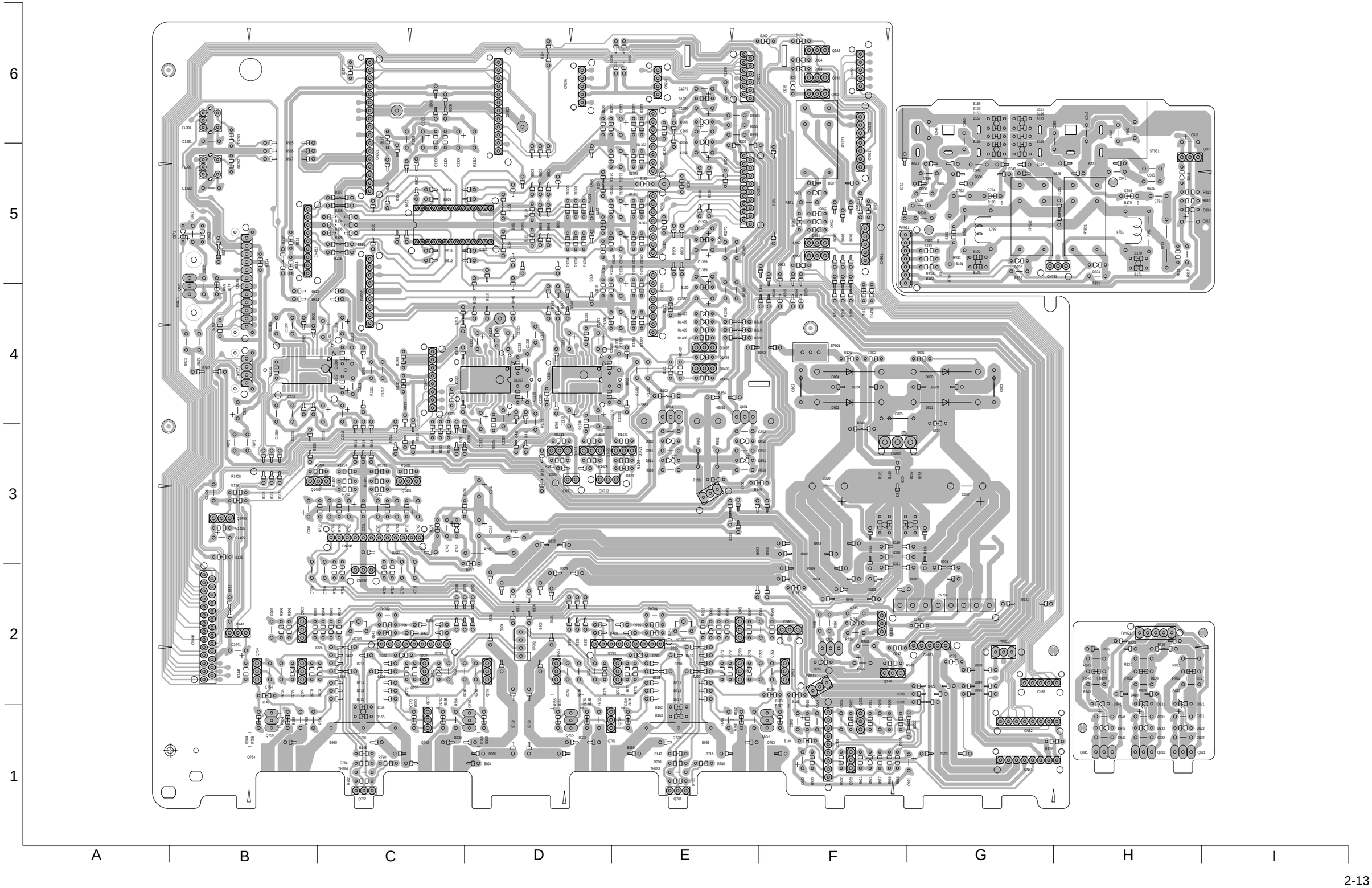


Printed circuit boards

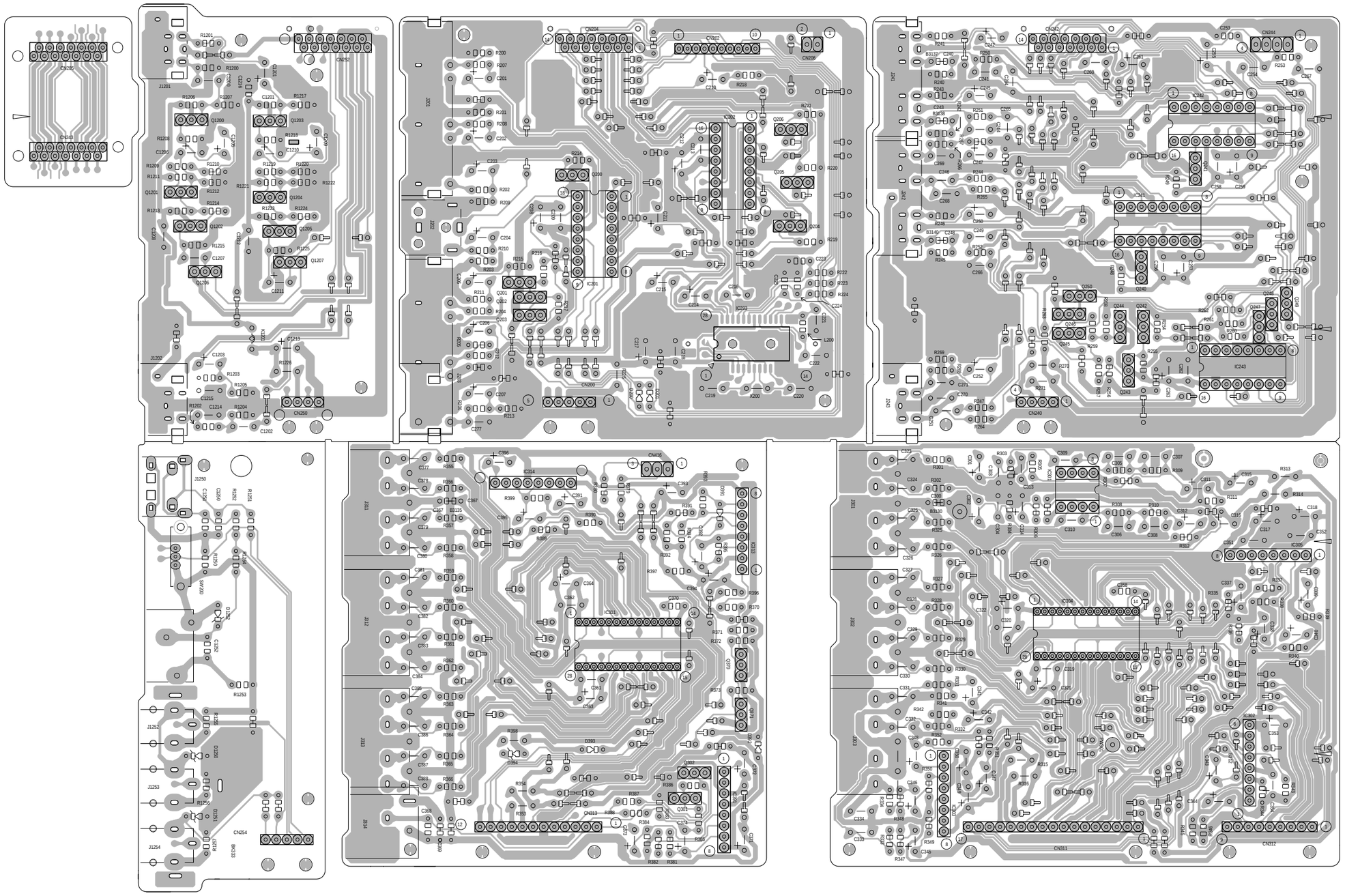
■Power amp. & Power spply board



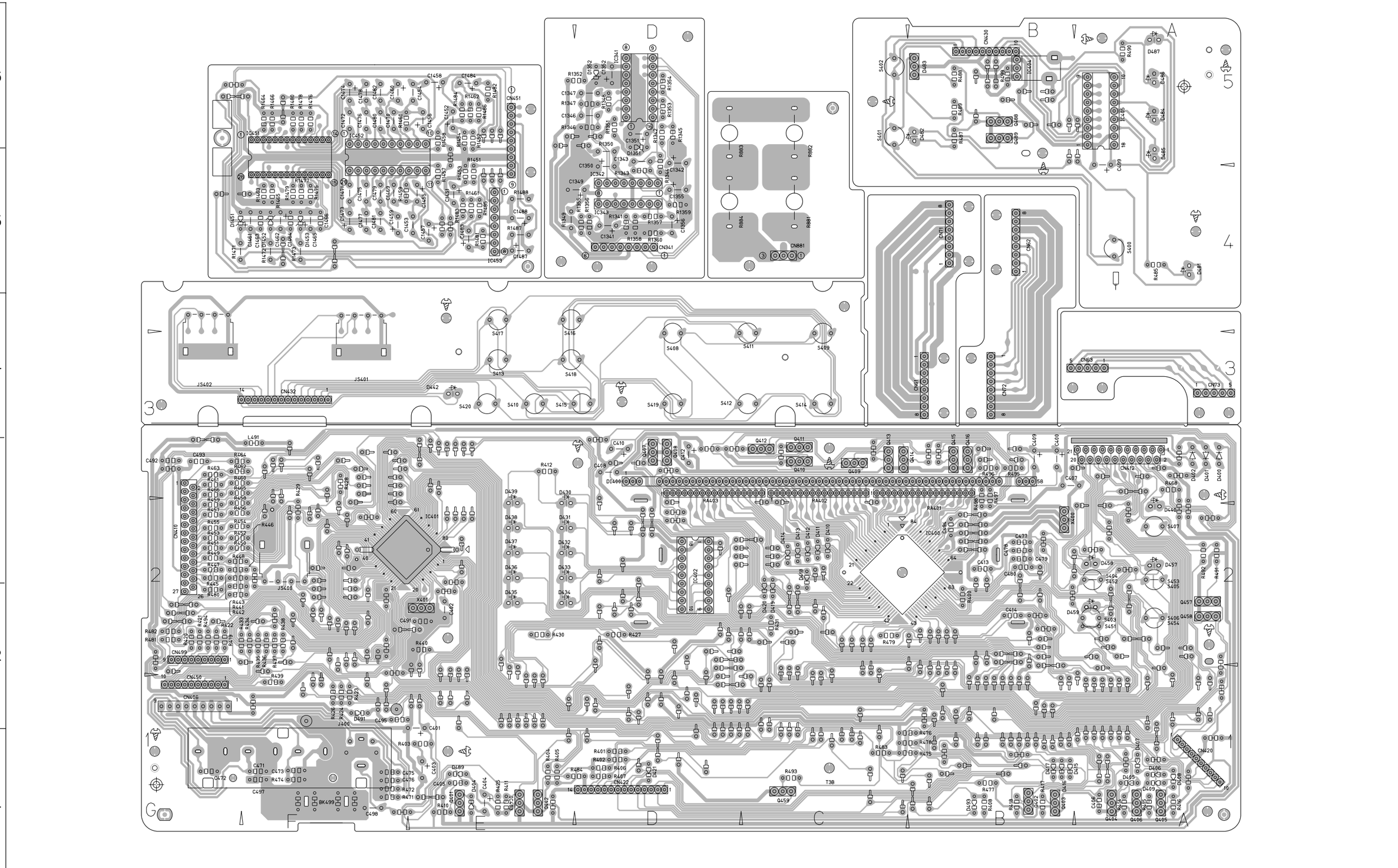
■ Main board



■ Input / output board

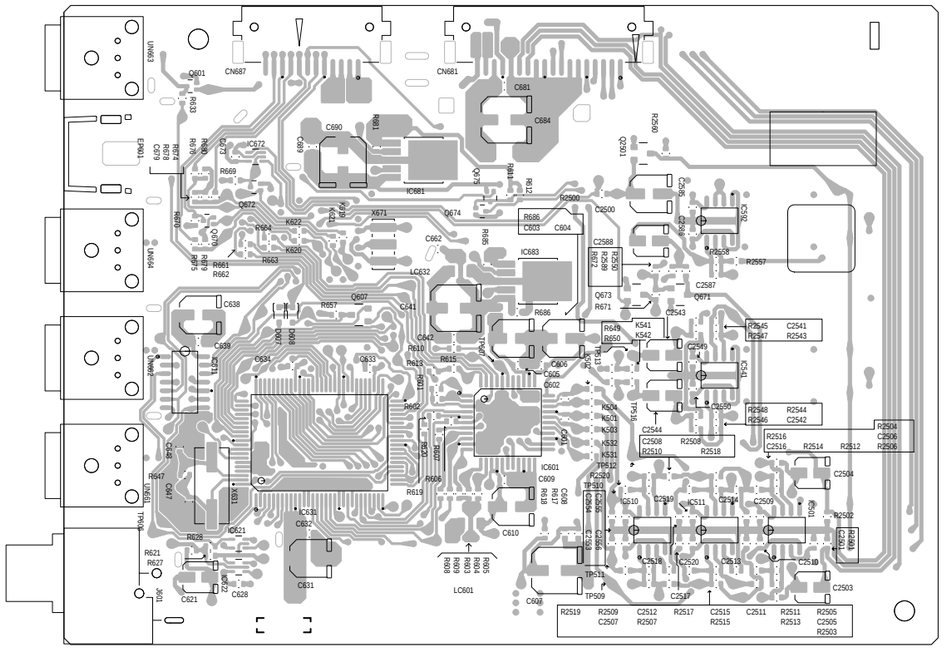


■ FL Display & System control board

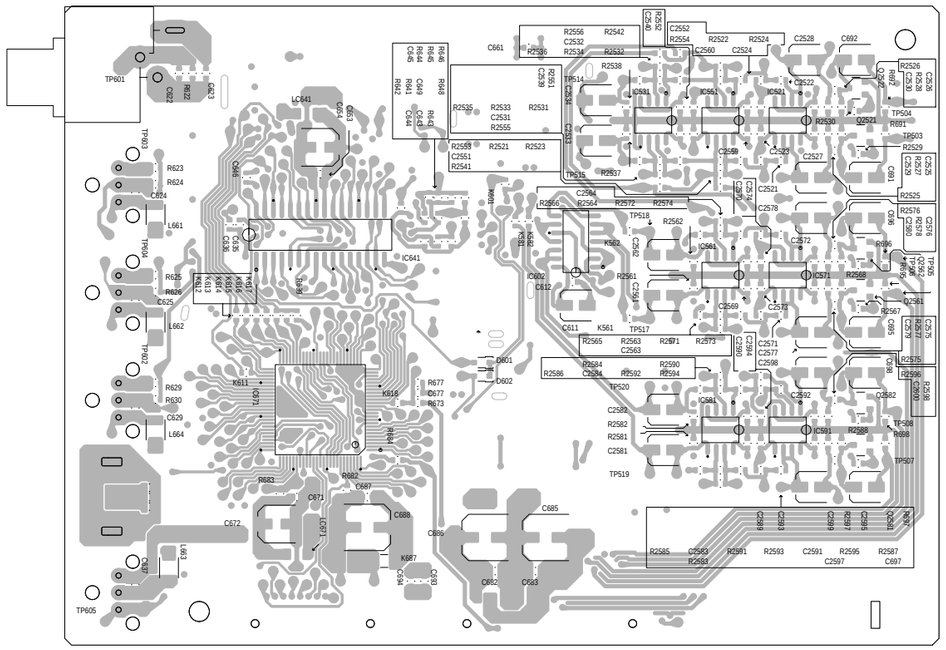


■ DSP board

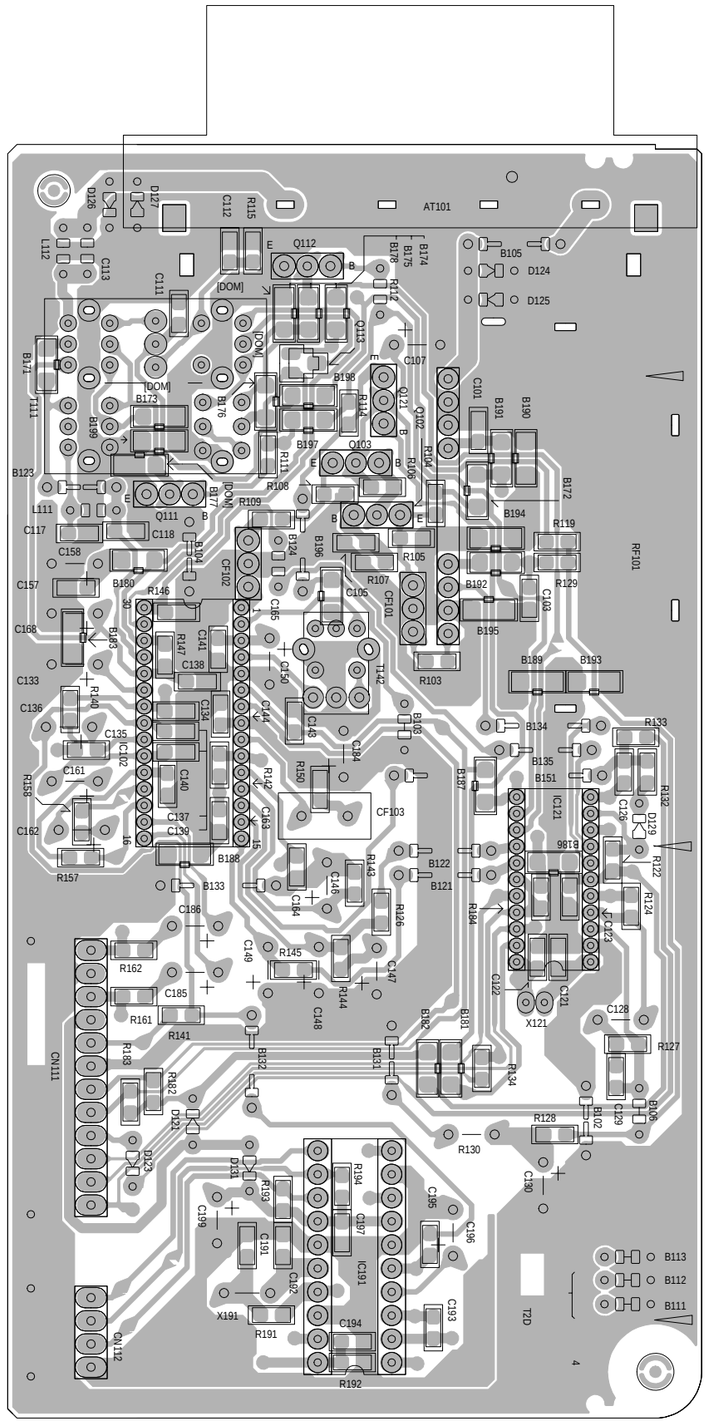
Forward side



Reverse side



■ Tuner board



PARTS LIST

[RX-7000RBK]

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

Area suffix

E ---------- Continental Europe
EN ---------- Northern Europe

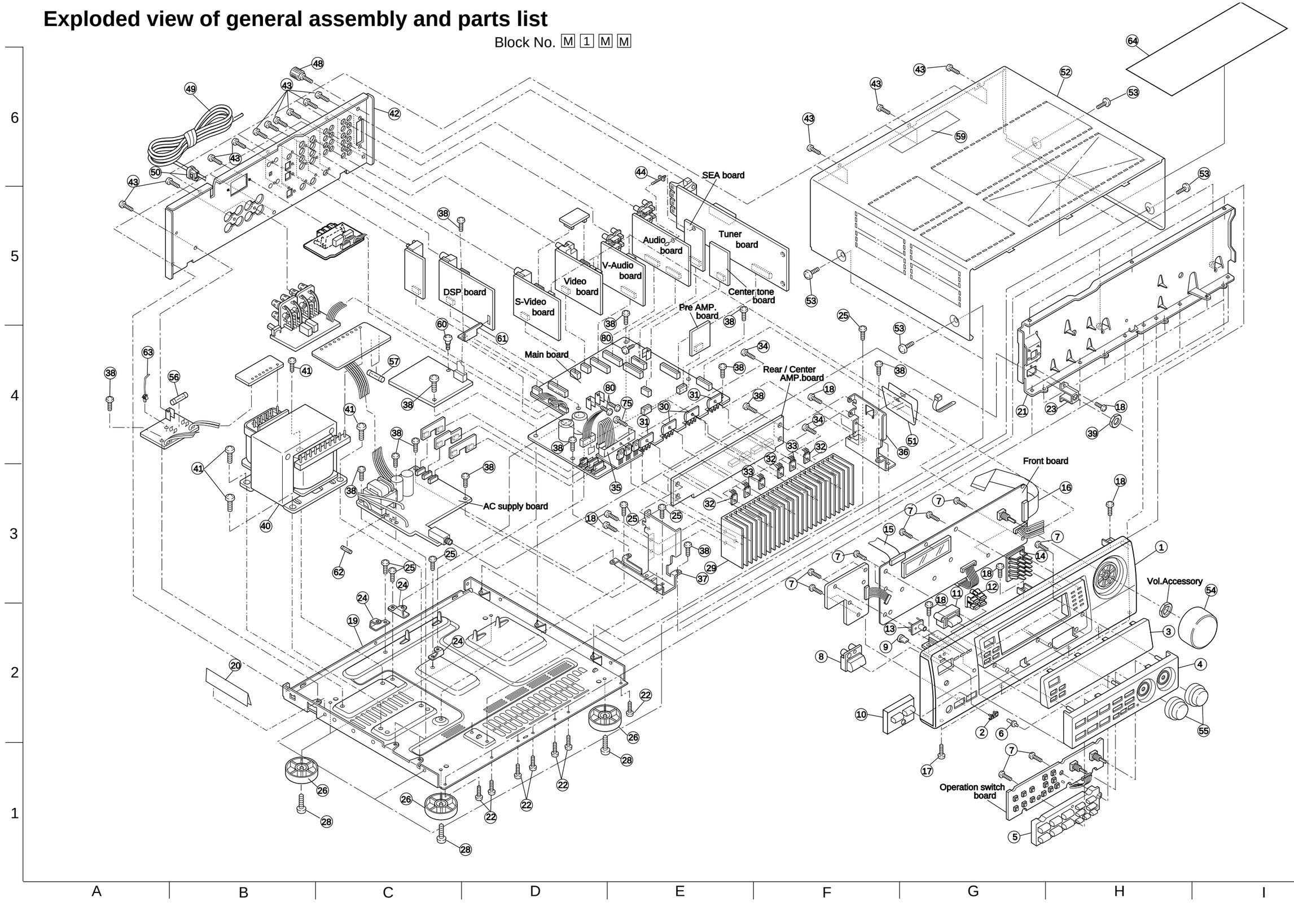
- Contents -

Exploded view of general assembly and parts list ---------- 3-3
Electrical parts List ---------- 3-5
Packing materials and accessories parts list ---------- 3-23

<<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	LV10018-032A	FRONT PANEL	1		
	2	VJD5429-001SS	JVC MARK	1		
	3	LV20031-015A	LENS	1		
	4	LV20032-011A	FRONT ESC	1		
	5	LV20034-001A	PUSH BUTTON	1		
	6	LV40099-001A	INDICATOR	1		
	7	QYSDSF2608Z	SCREW	18		
	8	LV30068-002A	P.BUTTON(POWER)	1		
	9	FSJD4001-002	INDICATOR	1	POWER	
	10	LV30069-001A	P.BUTTON ASSY	1		
	11	LV30071-001A	P.BUTTON ASSY	1	DOLBY	
	12	LV30067-001A	P.BUTTON(RDS)	1		
	13	E308744-002	REMOTE LENS	1		
	14	LV30073-001A	SOURCE INDICATO	1		
	15	QUQC12-2120CJ	FFC WIRE	1		
	16	QUQC12-2722CJ	FFC WIRE	1		
	17	QYSDSG3008M	SCREW	5	FRONT D	
	18	QYSBSG3008E	T.SCREW	8	FRONT U	
	19	LV10019-002A	CHASSIS BASE	1		
	20	EXO150010H09S11	FELT SPACER	1	FOR C.BASE	
	21	LV10020-001A	FRONT BRACKET	1		
	22	QYSDSG3008E	T.SCREW	7	C.B-F.B	
	23	LE40139-001A	H.P. BKT	1		
	24	E68587-223SM	CB BKT	3		
	25	QYSBST3006E	T.SCREW	10		
	26	QZF6018-001	FOOT	4		
	28	QYSBST3010Z	T.SCREW	4	FOOT	
	29	LV30075-203A	HEAT SINK	1		
⚠	30	2SC3857/PY/-F1	TRANSISTOR	2	Q761 Q762	
⚠	31	2SA1493/PY/-F1	TRANSISTOR	2	Q763 Q764	
⚠	32	2SD2390LD/OPY/	TRANSISTOR	1	Q1751	
⚠		2SD2390LD/OPY/	TRANSISTOR	2	Q1851 Q1852	
⚠	33	2SB1560LD/OPY/	TRANSISTOR	1	Q1752	
⚠		2SB1560LD/OPY/	TRANSISTOR	2	Q1853 Q1854	
	34	E73525-003SS	SCREW	14	TR	
	35	LV41603-001A	LEAF SPRING	1		
	36	LV20035-001A	H.S BRACKET(R)	1		
	37	LV20036-001A	H.S BRACKET(L)	1		
	38	QYSBSGG3008E	T.SCREW	17		
	39	VKZ4150-001	SPECIAL NUT	1		
⚠	40	QQT0302-001	POWER TRANSF	1	BANDO	
	41	QYSDSTL4008E	SPECIAL SCREW	4	P.TRANS	
	42	LV10021-064A	REAR PANEL	1		
	43	QYSBSGY3008E	SPECIAL SCREW	32		
	44	E302321-001	FASTNER	1	SPACER	
	48	E409257-001	GND TERMINAL	1		
⚠	49	QMP3900-200L	POWER CORD	1		
⚠	50	QHS3771-108	CORD STOPPER	1		

■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	51	LV30076-001A	PROTECTOR	1		
	52	LV20038-006A/S/	TOP COVER	1		
	53	E406308-003	SPECIAL SCREW	4		
	54	LV30480-004A	VOL KNOB ASS'Y	1		
	55	LV30481-001A	JOG KNOB ASS'Y	2		
⚠	56	QMF51E2-2R5-J1	FUSE	1	F1	
⚠	57	QMF51E2-2R0-J1	FUSE	2	F61 F62	
	59	E409396-001	CAUTION LABEL	1		
	60	E310243-002	PLASTIC RIVET	1		
	61	LV41240-002A	BRACKET	1		
⚠	62	QMF51E2-R10-J1	FUSE	1	F2	
	63	E307572-001	FASTENER	1		
	64	LV30077-001A	PROTECT SHEET	1		
	75	QYSBSG3008E	T.SCREW	1	TR(LEAF)	
	80	QYSBSG3008E	T.SCREW	3		

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

⚠	Item	Parts number	Parts name	Remarks	Area
	FW881	QUM133-26DGZ4	PARA RIBON WIRE		
	FW931	QUM137-16DGZ4	PARA RIBON WIRE		
	HL331	VYH7653-002	IC HOLDER		
	HL332	VYH7653-002	IC HOLDER		
	HL333	VYH7653-002	IC HOLDER		
	HS851	E70306-001	HEAT SINK		
	HS861	E70306-001	HEAT SINK		
	HS871	E70306-001	HEAT SINK		
	IC321	TC9162AN	IC		
	IC331	TC9459F	IC		
	IC332	TC9459F	IC		
	IC333	TC9459F	IC		
	IC361	NJM4580L	IC		
	IC362	BA15218N	IC		
	IC363	BA15218N	IC		
	IC901	TA7317P	IC		
	L 791	QQLZ003-1R0	INDUCTOR		
	L 792	QQLZ003-1R0	INDUCTOR		
	O 743	2SA965/OY/-T	TRANSISTOR		
	O 744	2SC2240/GL/-T	TRANSISTOR		
⚠	O 751	2SC2389S/SE/-T	TRANSISTOR		
⚠	O 752	2SC2389S/SE/-T	TRANSISTOR		
⚠	O 753	2SA1038S/S/-T	TRANSISTOR		
⚠	Q 754	2SA1038S/S/-T	TRANSISTOR		
⚠	O 755	2SD669A/BC/	TRANSISTOR		
⚠	O 756	2SD669A/BC/	TRANSISTOR		
⚠	O 757	2SB649A/BC/	TRANSISTOR		
⚠	O 758	2SB649A/BC/	TRANSISTOR		
	Q 771	2SC2389S/SE/-T	TRANSISTOR		
	O 772	2SC2389S/SE/-T	TRANSISTOR		
	O 773	2SA1038S/SE/-T	TRANSISTOR		
	O 774	2SA1038S/SE/-T	TRANSISTOR		
	O 781	2SD637/QR/	TRANSISTOR		
	Q 782	2SD637/QR/	TRANSISTOR		
	C 701	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 702	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 703	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 704	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 707	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 708	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 709	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 710	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 719	QFLC1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 720	QFLC1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 741	QETN2AM-476Z	E CAPACITOR	47MF 20% 100V	
	C 742	QETN2AM-476Z	E CAPACITOR	47MF 20% 100V	
	C 743	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 745	QEKC1HM-226Z	E.CAPACITOR	22MF 20% 50V	
	C 751	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 752	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 753	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 754	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 791	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 792	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 793	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 794	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 801	QFN82CK-104	M.CAPACITOR	.10MF 10% 160V	
	C 802	QFN82CK-104	M.CAPACITOR	.10MF 10% 160V	
	C 805	QFN82CK-104	M.CAPACITOR	.10MF 10% 160V	
⚠	C 807	QEZ0506-129	E CAPACITOR	12000MF	
⚠	C 808	QEZ0506-129	E CAPACITOR	12000MF	
	C 811	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 812	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 821	QEHR1EM-107Z	E.CAPACITOR	100MF 20% 25V	
	C 822	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 831	QEHR1EM-107Z	E.CAPACITOR	100MF 20% 25V	
	C 832	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 841	QEHR1EM-107Z	E.CAPACITOR	100MF 20% 25V	
	C 842	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 851	QEHR1EM-107Z	E.CAPACITOR	100MF 20% 25V	
	C 852	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 861	QEHR1EM-107Z	E.CAPACITOR	100MF 20% 25V	
	C 862	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 871	QEHR1EM-107Z	E.CAPACITOR	100MF 20% 25V	
	C 872	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 875	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 903	QER61HM-226Z	E.CAPACITOR	22MF 20% 50V	
	C 904	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 905	QCB31HK-102Z	C CAPACITOR	1000PF 10% 50V	
	C 906	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 920	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 921	QER61CM-107Z	E.CAPACITOR	100MF 20% 16V	
	C 935	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 936	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 937	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 938	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 939	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 940	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 941	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	C 942	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	C 943	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	C 944	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	CN 81	QGB2510J1-08	CONNECTOR		
	CN 82	QGB2510J1-08	CONNECTOR		
	CN 83	QGB2510J1-05	CONNECTOR		
	CN101	QGB2501J1-12	CONNECTOR		
	CN102	QGB2501J1-04	CONNECTOR		
	CN201	QGB2510J1-05	CONNECTOR		
	CN241	QGB2510J1-04	CONNECTOR		
	CN255	QGB2510J1-05	CONNECTOR		
	CN301	QGB2510J1-17	CONNECTOR		
	CN302	QGB2510J1-09	CONNECTOR		
	CN303	QGB2510J1-12	CONNECTOR		
	CN400	QGF1205C1-27	CONNECTOR		
	CN452	QGB2510J1-09	CONNECTOR		
	CN501	QGB1214J3-18S	CONNECTOR		
	CN601	QGB1214J3-12S	CONNECTOR		
	CN704	QGA3901C1-08	8P CONNECTOR		
	CN706	QGB2510J1-12	CONNECTOR		
	CN711	QGA2501C1-02	2P CONNECTOR		
	CN712	QGA2501C1-03	3P CONNECTOR		
	CN801	QJK012-032803	SKT WIRE ASSY		
	CN821	QGD2501C1-05Z	SOCKET		
	CN901	QGD2501C1-03Z	SOCKET		
	CN931	QGD2501C1-04Z	SOCKET		
	CN932	QGD2501C1-03Z	SOCKET		
	CN961	QGD2501C1-05Z	SOCKET		
	C1301	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1302	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1303	QDVB1EZ-223Y	C CAPACITOR		
	C1304	QDVB1EZ-223Y	C CAPACITOR		
	C1309	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C1310	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C1311	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1312	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1313	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	

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

⚠	Item	Parts number	Parts name	Remarks	Area
	C1314	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1315	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1316	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1317	QDVB1EZ-223Y	C CAPACITOR		
	C1318	QDVB1EZ-223Y	C CAPACITOR		
	C1319	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1321	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1322	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1323	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1324	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1325	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1326	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1327	QDVB1EZ-223Y	C CAPACITOR		
	C1328	QDVB1EZ-223Y	C CAPACITOR		
	C1329	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1331	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1332	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1333	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1334	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1335	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1336	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1337	QDVB1EZ-223Y	C CAPACITOR		
	C1338	QDVB1EZ-223Y	C CAPACITOR		
	C1339	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1361	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1362	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1369	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1370	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1371	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1372	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1379	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1380	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1381	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1382	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C1389	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1390	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1391	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C1392	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C1405	QETN1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C1406	QENC1HM-106Z	NP E.CAPACITOR	10MF 20% 50V	
	D 743	MTZJ18C-T2	Z.DIODE		
	D 751	1SS133-T2	SI DIODE		
	D 752	MTZJ20C-T2	Z.DIODE		
	D 771	1SS133-T2	SI DIODE		
	D 772	1SS133-T2	SI DIODE		
	D 773	1SS133-T2	SI DIODE		
	D 774	1SS133-T2	SI DIODE		
⚠	D 801	30DF2-FC	DIODE		
⚠	D 802	30DF2-FC	DIODE		
⚠	D 803	30DF2-FC	DIODE		
⚠	D 804	30DF2-FC	DIODE		
	D 811	1SS133-T2	SI DIODE		
	D 814	MTZJ5.1C-T2	ZENER DIODE		
⚠	D 821	MTZJ6.8C-T2	Z DIODE		
	D 822	1SS133-T2	SI DIODE		
⚠	D 831	MTZJ6.2C-T2	Z DIODE		
	D 832	1SS133-T2	SI DIODE		
⚠	D 841	MTZJ6.2C-T2	Z DIODE		
	D 842	1SS133-T2	SI DIODE		
⚠	D 851	MTZJ15C-T2	Z DIODE		
	D 852	1SS133-T2	SI DIODE		
⚠	D 861	MTZJ15C-T2	Z DIODE		
	D 862	1SS133-T2	SI DIODE		

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	D 871	MTZJ10C-T2	Z.DIODE		
	D 872	1SS133-T2	SI DIODE		
	D 901	1SS133-T2	SI DIODE		
	D 902	1SS133-T2	SI DIODE		
	D 921	MTZJ4.7B-T2	Z DIODE		
	D 931	1SS133-T2	SI DIODE		
	D 932	1SS133-T2	SI DIODE		
	D 933	1SS133-T2	SI DIODE		
	D 934	1SS133-T2	SI DIODE		
	D 953	1SS133-T2	SI DIODE		
	D 954	1SS133-T2	SI DIODE		
	D 971	1SS133-T2	SI DIODE		
	D 972	1SS133-T2	SI DIODE		
	D1435	1SS133-T2	SI DIODE		
	D1436	1SS133-T2	SI DIODE		
	D1437	MTZJ4.7B-T2	Z DIODE		
	D1438	1SS133-T2	SI DIODE		
	EP801	QNZ0136-001Z	EARTH PLATE		
	FL391	QQR0590-001	FILTER		
	FL392	QQR0590-001	FILTER		
	FW811	QUM133-10Z4Z4	PARA RIBON WIRE		
	FW821	QUM135-08DGZ4	FLAT WIRE		
	O 801	KRC109M-T	D.TRANSISTOR		
	O 814	2SD2061/EF/	TRANSISTOR		
⚠	O 821	2SD2061/EF/	TRANSISTOR		
⚠	Q 831	2SD2061/EF/	TRANSISTOR		
⚠	O 841	2SD2061/EF/	TRANSISTOR		
⚠	O 851	2SD2061/EF/	TRANSISTOR		
⚠	O 861	2SB1187/EF/	TRANSISTOR		
⚠	O 871	2SD2061/EF/	TRANSISTOR		
	O 901	2SC2389S/SE/-T	TRANSISTOR		
	Q 902	2SC2389S/SE/-T	TRANSISTOR		
	O 903	2SA1038S/SE/-T	TRANSISTOR		
	O 921	KTC3199/GL/-T	TRANSISTOR		
	O 931	KRC105M-T	D.TRANSISTOR		
	O 932	KRC105M-T	D.TRANSISTOR		
	O 951	KRC105M-T	D.TRANSISTOR		
	O 952	KRC105M-T	D.TRANSISTOR		
	O1401	2SC2878/AB/-T	TRANSISTOR		
	O1402	2SC2878/AB/-T	TRANSISTOR		
	O1405	KRA104M-T	D.TRANSISTOR		
	O1411	2SC2878/AB/-T	TRANSISTOR		
	O1421	2SC2878/AB/-T	TRANSISTOR		
	O1422	2SC2878/AB/-T	TRANSISTOR		
	O1435	2SA933S/RS/-T	TRANSISTOR		
	O1438	KRA104M-T	D.TRANSISTOR		
	R 701	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 702	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 703	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 704	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 711	QRE141J-911Y	C RESISTOR	910 5% 1/4W	
	R 712	QRE141J-911Y	C RESISTOR	910 5% 1/4W	
	R 713	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 714	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 715	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 716	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
⚠	R 735	QRZ9005-100X	F.RESISTOR	10 1/0W	
⚠	R 736	QRJ146J-102X	UNF C.RESISTOR	1.0K 5% 1/4W	
⚠	R 742	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
⚠	R 743	QRL022J-562	UNF.OMF.RES	5.6K 5% 1/2W	
	R 747	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 748	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
⚠	R 751	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	

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

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	R 752	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R 753	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R 754	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R 759	QRJ146J-272X	UNF C.RESISTOR	2.7K 5% 1/4W	
⚠	R 760	QRJ146J-272X	UNF C.RESISTOR	2.7K 5% 1/4W	
⚠	R 761	QRJ146J-4R7X	UNF C.RESISTOR	4.7 5% 1/4W	
⚠	R 762	QRJ146J-4R7X	UNF C.RESISTOR	4.7 5% 1/4W	
⚠	R 763	QRJ146J-4R7X	UNF C.RESISTOR	4.7 5% 1/4W	
⚠	R 764	QRJ146J-4R7X	UNF C.RESISTOR	4.7 5% 1/4W	
⚠	R 765	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
⚠	R 766	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
⚠	R 767	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
⚠	R 768	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
⚠	R 769	QRJ146J-271X	UNF C.RESISTOR	270 5% 1/4W	
⚠	R 770	QRJ146J-271X	UNF C.RESISTOR	270 5% 1/4W	
	R 771	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 772	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 773	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 774	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 775	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 776	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 777	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R 778	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
⚠	R 779	QRZ0196-R22	EMIT.RESISTOR	0.22 7W	
⚠	R 780	QRZ0196-R22	EMIT.RESISTOR	0.22 7W	
	R 781	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 782	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 783	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 784	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 785	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 786	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 789	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 790	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R 791	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W	
⚠	R 792	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W	
⚠	R 793	QRL022J-100	UNF.O.RESISTOR	10 5% 1/2W	
⚠	R 794	QRL022J-100	UNF.O.RESISTOR	10 5% 1/2W	
	R 801	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 802	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 811	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 812	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 813	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
⚠	R 817	QRJ146J-392X	UNF C.RESISTOR	3.9K 5% 1/4W	
⚠	R 823	QRJ146J-122X	UNF C.RESISTOR	1.2K 5% 1/4W	
⚠	R 833	QRJ146J-122X	UNF C.RESISTOR	1.2K 5% 1/4W	
⚠	R 843	QRJ146J-122X	UNF C.RESISTOR	1.2K 5% 1/4W	
⚠	R 851	QRK126J-120X	UNF.C.RESISTOR	12 5% 1/2W	
⚠	R 853	QRJ146J-222X	UNF C.RESISTOR	2.2K 5% 1/4W	
⚠	R 861	QRK126J-120X	UNF.C.RESISTOR	12 5% 1/2W	
⚠	R 863	QRJ146J-222X	UNF C.RESISTOR	2.2K 5% 1/4W	
⚠	R 871	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
⚠	R 873	QRJ146J-332X	UNF C.RESISTOR	3.3K 5% 1/4W	
⚠	R 875	QRZ9005-220X	F.RESISTOR	22 1/0W	
	R 901	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 902	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 903	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 904	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 905	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 906	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 909	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 911	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 912	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 913	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 914	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 915	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 916	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 917	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R 918	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R 919	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R 920	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	R 921	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 922	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
⚠	R 931	QRJ146J-101X	UNF C.RESISTOR	100 5% 1/4W	
⚠	R 932	QRJ146J-101X	UNF C.RESISTOR	100 5% 1/4W	
⚠	R 935	QRZ9005-100X	F.RESISTOR	10 1/4W	
⚠	R 936	QRZ9005-100X	F.RESISTOR	10 1/4W	
⚠	R 937	QRZ9005-100X	F.RESISTOR	10 1/4W	
⚠	R 938	QRZ9005-100X	F.RESISTOR	10 1/4W	
⚠	R 971	QRJ146J-101X	UNF C.RESISTOR	100 5% 1/4W	
⚠	R 988	QRJ146J-223X	UNF C.RESISTOR	22K 5% 1/4W	
⚠	R 994	QRZ9005-100X	F.RESISTOR	10 1/4W	
⚠	R 995	QRJ146J-103X	UNF C.RESISTOR	10K 5% 1/4W	
	RY931	QSK0109-001	RELAY		
	RY932	QSK0109-001	RELAY		
	RY971	QSK0109-001	RELAY		
	R1301	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1302	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1303	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1304	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1305	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R1306	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
⚠	R1309	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1310	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1311	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1312	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R1313	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1314	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1321	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1322	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R1323	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1324	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1331	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1332	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R1333	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1334	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1361	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1362	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1363	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1364	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1365	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1366	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1369	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1370	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R1371	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1372	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R1373	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1374	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R1375	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1376	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1379	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1380	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R1381	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1382	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1383	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1384	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1385	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	

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

⚠	Item	Parts number	Parts name	Remarks	Area
	R1386	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1389	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1390	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R1391	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1392	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1401	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1402	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1403	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1404	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1405	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1406	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1411	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1412	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1421	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1422	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1423	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1424	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1435	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R1436	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1437	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1438	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	ST931	QNB0024-001	SPK.TERMINAL		
⚠	TH783	QAD0012-202	THERMISTOR		
⚠	TH784	QAD0012-202	THERMISTOR		
	TP781	QMV5005-004K	4P PLUG ASSY		
	VR787	QVP0004-501Z	SEMI.V.RESISTOR		
	VR788	QVP0004-501Z	SEMI.V.RESISTOR		

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

⚠	Item	Parts number	Parts name	Remarks	Area
	C 400	QEKC1HM-475Z	E.CAPACITOR	4.7MF 20% 50V	
	C 401	QEKC0JM-107Z	E.CAPACITOR	100MF 20% 6.3V	
	C 402	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 403	QEZ0227-479Z	EDL CAPACITOR	47000MF	
	C 404	QER61HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 405	QDVB1EZ-223Y	C CAPACITOR		
	C 406	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 407	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 408	QFVJ1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 409	QEKC1HM-475Z	E.CAPACITOR	4.7MF 20% 50V	
	C 410	QEKC1HM-475Z	E.CAPACITOR	4.7MF 20% 50V	
	C 412	QEKC0JM-107Z	E.CAPACITOR	100MF 20% 6.3V	
	C 413	QDYB1CM-103Y	C.CAPACITOR		
	C 414	QDYB1CM-103Y	C.CAPACITOR		
	C 477	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 478	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 479	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 480	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 492	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 493	QCBB1HK-271Y	C CAPACITOR	270PF 10% 50V	
	C 494	QDVB1EZ-223Y	C CAPACITOR		
	C 495	QCFB1HZ-104Y	C CAPACITOR	.10MF +80:-20%	
	C 499	QEKC0JM-107Z	E.CAPASITOR	100MF 20% 6.3V	
	CN 61	QGB2510K1-08	CONNECTOR		
	CN 62	QGB2510K1-08	CONNECTOR		
	CN 63	QGB2510K1-05	CONNECTOR		
	CN 71	QGB2510K1-08	CONNECTOR		
	CN 72	QGB2510K1-08	CONNECTOR		
	CN 73	QGB2510K1-05	CONNECTOR		
	CN410	QGF1205F1-27	CONNECTOR		
	CN412	QGF1210G1-21	CONNECTOR		
	CN420	QJK018-100800	SKT WIRE	(LEFT)	
	CN422	QGA2001F1-14	14P PLUG ASSY		
	CN430	QGA2001F1-10	10P PLUG ASSY		
	CN432	QJK018-140804	SKT WIRE ASSY		
	CN450	QJK021-104000	C-B WIRE ASSY		
	CN451	QGB2510K1-09	CONNECTOR		
	CN881	QGD2501C1-03Z	SOCKET		
	C1451	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1452	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1453	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C1454	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C1455	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1456	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1457	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1458	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1459	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1460	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1461	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1462	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1463	QDVB1EZ-223Y	C CAPACITOR		
	C1464	QDVB1EZ-223Y	C CAPACITOR		
	C1465	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1469	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C1470	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C1471	QFVJ1HJ-333Z	CAPACITOR	.033MF 5% 50V	
	C1472	QFVJ1HJ-333Z	CAPACITOR	.033MF 5% 50V	
	C1473	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C1474	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C1475	QFLC1HJ-332Z	M CAPACITOR	3300PF 5% 50V	
	C1476	QFLC1HJ-332Z	M CAPACITOR	3300PF 5% 50V	
	C1477	QFVJ1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C1478	QFVJ1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C1479	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C1480	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C1481	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C1482	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C1483	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1484	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1487	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1488	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	D 400	1SR35-400A-T5	DIODE		
	D 401	1SR35-400A-T5	DIODE		
	D 402	1SR35-400A-T5	DIODE		
	D 404	1SS133-T2	SI DIODE		
	D 410	RB441Q-40-T2	S.B.DIODE		
	D 411	1SS133-T2	SI DIODE		
	D 412	1SS133-T2	SI DIODE		
	D 413	1SS133-T2	SI DIODE		
	D 414	1SS133-T2	SI DIODE	(RDS)	
	D 415	1SS133-T2	SI DIODE	BAND0(E)	
	D 418	1SS133-T2	SI DIODE		
	D 419	1SS133-T2	SI DIODE	PAL	
	D 430	SLR-342VC-T	LED	(DVD)	
	D 431	SLR-342VC-T	LED	(TV)	
	D 432	SLR-342VC-T	LED	(VCR1)	
	D 435	SLR-342VC-T	LED	(AM)	
	D 436	SLR-342VC-T	LED	(FM)	
	D 437	SLR-342VC-T	LED	(TAPE)	
	D 438	SLR-342VC-T	LED	(PHONO)	
	D 439	SLR-342VC-T	LED	(CD)	
	D 440	SLR-342VC-T	LED	(SURROUND)	
	D 442	SLR-342VC-T	LED	(OTO)	
	D 481	SLR-342VC-T	LED	(STANDBY)	
	D 482	SLR-342VC-T	LED	(SPK1)	
	D 483	SPR-325MVW/L/-T	LED	(SPK2)	
	D 493	1SS133-T2	SI DIODE		
	DI400	QLF0071-001	FL TUBE		
	D1451	MTZJ6.8C-T2	Z DIODE		
	D1452	MTZJ6.8C-T2	Z DIODE		
	D1453	MTZJ5.1C-T2	ZENER DIODE		
	FS400	E3400-444	FELT SPACER		
	FS401	E3400-444	FELT SPACER		
	HL400	VYH7653-001	IC HOLDER		
	HL401	VYH7237-003	IC HOLDER		
	IC400	MN173222DG	IC		
	IC401	MN101C15FDE	IC		
	IC402	BU2092	IC		
	IC403	IC-PST9139-T	IC		
	IC404	GP1U271X	RM RECIVER		
	IC405	BU2092	IC		
	IC451	LC7522	IC		
	IC452	M5243AP12	IC		
	IC453	BA15218N	IC		
	JS400	QSW0502-001	SWITCH		
	JS401	QSW0672-001	ROTARY ENCODER	(MULTI)	
	JS402	QSW0672-001	ROTARY ENCODER	(SOURCE)	
	O 401	KRC107M-T	D.TRANSISTOR		
	Q 402	KRC111M-T	TRANSISTOR		
	O 403	KRC109M-T	D.TRANSISTOR		
	O 407	KRC107M-T	D.TRANSISTOR		
	O 408	KRC107M-T	D.TRANSISTOR		
	O 413	KRA107M-T	D.TRANSISTOR		
	Q 414	KRA107M-T	D.TRANSISTOR		
	O 415	KRA107M-T	D.TRANSISTOR		
	O 416	KRA107M-T	D.TRANSISTOR		

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

⚠	Item	Parts number	Parts name	Remarks	Area
	O 442	KRA107M-T	D.TRANSISTOR		
	O 488	KRA107M-T	D.TRANSISTOR		
	R 400	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 401	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 402	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 403	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 404	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 405	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 406	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 407	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 408	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 410	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 411	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 412	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 417	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 418	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 423	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 424	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 425	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 426	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 427	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 430	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 431	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 433	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 434	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 435	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 436	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 437	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 438	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 439	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 440	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 441	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 442	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 443	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 445	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 446	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 447	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 448	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 449	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 450	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 451	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 452	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 453	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 454	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 455	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 456	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 457	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 458	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 459	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 460	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 461	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 462	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 463	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 464	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 465	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 466	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 468	QRE141J-271Y	C RESISTOR	270 5% 1/4W	
	R 475	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 476	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 477	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 478	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 479	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 480	QRE141J-221Y	C RESISTOR	220 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 481	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 482	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 483	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 484	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 485	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 487	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 488	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 490	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 495	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 496	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 497	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 498	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 499	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
⚠	R 881	QRZ0209-3R3	RESISTOR	3.3 1/2W	
⚠	R 882	QRZ0209-3R3	RESISTOR	3.3 1/2W	
⚠	R 883	QRZ0209-3R3	RESISTOR	3.3 1/2W	
⚠	R 884	QRZ0209-3R3	RESISTOR	3.3 1/2W	
	R1451	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1452	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1453	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1454	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1457	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1458	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1459	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R1460	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R1461	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1462	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1463	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R1464	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R1465	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
	R1466	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
⚠	R1471	QRJ146J-561X	UNF C.RESISTOR	560 5% 1/4W	
⚠	R1472	QRJ146J-561X	UNF C.RESISTOR	560 5% 1/4W	
⚠	R1473	QRJ146J-681X	UNF C.RESISTOR	680 5% 1/4W	
	R1475	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1476	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1477	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1478	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1479	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1480	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1481	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1482	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1483	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1484	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1485	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1486	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1487	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R1488	QRZ9005-680X	F.RESISTOR	68 1/4W	
	S 400	QSW0683-001Z	PUSH SWITCH	(POWER)	
	S 401	QSW0683-001Z	PUSH SWITCH	(SPK1)	
	S 402	QSW0683-001Z	PUSH SWITCH	(SPK2)	
	S 403	QSW0683-001Z	PUSH SWITCH	(RDS)	
	S 404	QSW0683-001Z	PUSH SWITCH	(RDS)	
	S 405	QSW0683-001Z	PUSH SWITCH	(RDS)	
	S 406	QSW0683-001Z	PUSH SWITCH	(RDS)	
	S 407	QSW0683-001Z	PUSH SWITCH	(SURROUND)	
	S 408	QSW0683-001Z	PUSH SWITCH	(DIGITAL)	
	S 409	QSW0683-001Z	PUSH SWITCH	(DSP MODE)	
	S 410	QSW0683-001Z	PUSH SWITCH	(LOUDNESS)	
	S 411	QSW0683-001Z	PUSH SWITCH	(SEA MODE)	
	S 412	QSW0683-001Z	PUSH SWITCH	(SEA ADJ)	
	S 413	QSW0683-001Z	PUSH SWITCH	(FM MODE)	
	S 414	QSW0683-001Z	PUSH SWITCH	(ADJUST)	

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

⚠	Item	Parts number	Parts name	Remarks	Area
	S 415	QSW0683-001Z	PUSH SWITCH	(S.SELECT)	
	S 416	QSW0683-001Z	PUSH SWITCH	(TUNING)	
	S 417	QSW0683-001Z	PUSH SWITCH	(PRESET)	
	S 418	QSW0683-001Z	PUSH SWITCH	(MEMORY)	
	S 419	QSW0683-001Z	PUSH SWITCH	(SETTING)	
	S 420	QSW0683-001Z	PUSH SWITCH	(OTO)	
	X 400	QAX0112-001Z	RESONATOR		
	X 401	QAX0246-001Z	RESONATOR		

■ **Electrical parts list (Input board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 201	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 202	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 203	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 204	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 207	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 208	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 209	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 211	QETN1HM-107Z	E CAPACITOR	100MF 20% 50V	
	C 212	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 213	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 214	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 215	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 216	QDX31EM-473Z	C.CAPACITOR		
	C 217	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 218	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 219	QDC31HJ-150Z	C CAPACITOR		
	C 220	QDC31HJ-100Z	C.CAPACITOR		
	C 221	QDC31HJ-470Z	C.CAPACITOR		
	C 222	QDC31HJ-270Z	A CAPASITOR		
	C 223	QDGB1HK-102Y	C CAPACITOR		
	C 224	QCBB1HK-271Y	C CAPACITOR	270PF 10% 50V	
	C 225	QCBB1HK-121Y	C CAPACITOR	120PF 10% 50V	
	C 241	QDX31EM-473Z	C.CAPACITOR		
	C 242	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 244	QDX31EM-473Z	C.CAPACITOR		
	C 245	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 246	QDX31EM-473Z	C.CAPACITOR		
	C 247	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 249	QDX31EM-473Z	C.CAPACITOR		
	C 250	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 251	QDX31EM-473Z	C.CAPACITOR		
	C 252	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 254	QDX31EM-473Z	C.CAPACITOR		
	C 255	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 256	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 257	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 258	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 259	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 260	QDX31EM-473Z	C.CAPACITOR		
	C 261	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 268	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 269	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 270	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 271	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 277	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 301	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 302	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 303	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 304	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 305	QFLC1HJ-182Z	M CAPACITOR	1800PF 5% 50V	
	C 306	QFLC1HJ-182Z	M CAPACITOR	1800PF 5% 50V	
	C 307	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V	
	C 308	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V	
	C 309	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 310	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 311	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 312	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 313	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 314	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 315	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 316	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 317	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 318	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 319	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 320	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 321	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 322	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 323	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 324	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 325	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 326	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 327	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 328	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 329	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 330	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 331	QCS11HJ-471	C CAPACITOR	470PF 5% 50V	
	C 332	QCS31HJ-391Z	C CAPACITOR	390PF 5% 50V	
	C 333	QCS31HJ-391Z	C CAPACITOR	390PF 5% 50V	
	C 334	QCS31HJ-391Z	C CAPACITOR	390PF 5% 50V	
	C 337	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 338	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 339	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 340	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 341	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 342	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 343	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 344	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 345	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 346	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 347	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 348	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 349	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 350	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 351	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 352	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 353	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 354	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 358	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 361	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 362	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C 363	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 364	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 368	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 369	QDVB1EZ-223Y	C CAPACITOR		
	C 370	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 371	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 372	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 373	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 374	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 377	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 378	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 379	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 380	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 381	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 382	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 383	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 384	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	CN200	QGB2510K1-05	CONNECTOR		
	CN202	QGA2001F1-10	10P PLUG ASSY		
	CN204	QGB1214K1-14S	CONNECTOR		
	CN205	QGB1214J1-14S	CONNECTOR		
	CN240	QGB2510K1-04	CONNECTOR		
	CN242	QGB1214K1-14S	CONNECTOR		
	CN243	QGB1214J1-14S	CONNECTOR		
	CN254	QGB2510K1-05	CONNECTOR		
	CN311	QGB2510K1-17	CONNECTOR		

■ **Electrical parts list(Input board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN312	QGB2510K1-09	CONNECTOR		
	CN313	QGB2510K1-12	CONNECTOR		
	C1250	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1251	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1252	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	D 200	1SS133-T2	SI DIODE		
	D 201	1SS133-T2	SI DIODE		
	D1252	MTZJ6.2C-T2	Z DIODE		
	IC201	BA7625	IC		
	IC202	NJM2285D	IC		
	IC203	MB90088PF-131	IC		
	IC241	BA7626	IC		
	IC242	BA7625	IC		
	IC301	NJM4580DD	IC		
	IC302	NJM4580L	IC		
	IC303	NJM4580L	IC		
	IC304	TC9164AN	IC		
	IC305	NJM4580L	IC		
	IC311	TC9163AN	IC		
	IC391	BA15218N	IC		
	J 201	QNN0078-001	PIN JACK		
	J 202	QNN0067-001	PIN JACK		
	J 203	QNN0017-002	PIN JACK		
	J 241	QND0002-001	S-CONNECTOR		
	J 242	QND0028-001	DIN CONNECTOR		
	J 243	QND0024-001	S JACK		
	J 301	QNN0056-001	PIN JACK		
	J 302	QNN0056-001	PIN JACK		
	J 303	QNN0185-001	PIN JACK		
	J 311	QNN0056-001	PIN JACK		
	J 312	QNN0056-001	PIN JACK		
	J 314	QNN0107-001	PIN JACK		
	J1250	QNS0077-001	3.5 JACK		
	J1251	QNS0083-001	3.5 JACK		
	L 200	QQL231K-220Y	INDUCTOR		
	O 200	KTA1267/YG/-T	TRANSISTOR		
	Q 204	KTA1267/YG/-T	TRANSISTOR		
	O 205	KTA1267/YG/-T	TRANSISTOR		
	O 206	KTA1267/YG/-T	TRANSISTOR		
	O 240	KTA1267/YG/-T	TRANSISTOR		
	O 241	KTA1267/YG/-T	TRANSISTOR		
	O 301	2SC2878/AB/-T	TRANSISTOR		
	O 302	2SC2878/AB/-T	TRANSISTOR		
	R 200	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 201	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 202	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 203	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 206	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 207	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 208	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 209	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 210	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 213	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 214	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R 219	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 220	QRE141J-121Y	C RESISTOR	120 5% 1/4W	
	R 221	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R 222	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 223	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 224	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
⚠	R 225	QRJ146J-3R3X	UNF C.RESISTOR	3.3 5% 1/4W	
	R 240	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 241	QRE141J-750Y	C RESISTOR	75 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 242	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 243	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 244	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 245	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 246	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 247	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 248	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R 249	QRE141J-121Y	C RESISTOR	120 5% 1/4W	
	R 256	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 257	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 258	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 259	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 264	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 265	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 266	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 267	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 268	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 269	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
⚠	R 271	QRJ146J-6R8X	UNF C.RESISTOR	6.8 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-473Y	C RESISTOR	47K 5% 1/4W	
	R 304	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 305	QRE141J-621Y	C RESISTOR	620 5% 1/4W	
	R 306	QRE141J-621Y	C RESISTOR	620 5% 1/4W	
	R 307	QRE141J-393Y	C RESISTOR	39K 5% 1/4W	
	R 308	QRE141J-393Y	C RESISTOR	39K 5% 1/4W	
	R 309	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 310	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 311	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 312	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R 313	QRJ146J-331X	UNF C.RESISTOR	330 5% 1/4W	
⚠	R 314	QRJ146J-331X	UNF C.RESISTOR	330 5% 1/4W	
⚠	R 315	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R 316	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R 325	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 326	QRE141J-471Y	C RESISTOR	470 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	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 332	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 333	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 334	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 335	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 336	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 337	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 338	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 339	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 340	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 341	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 342	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 343	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 344	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 345	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 346	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 347	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 348	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 349	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 350	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 351	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 352	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	

■ **Electrical parts list (Input board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	R 353	QRZ9005-680X	F.RESISTOR	68 1/4W	
⚠	R 354	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R 355	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 356	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 357	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 358	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 359	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 360	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 361	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 362	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 381	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 382	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 383	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 384	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 385	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 386	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 387	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 388	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1250	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R1251	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R1252	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R1253	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1254	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	SP203	VYH7653-005	IC HOLDER		
	X 200	QAX0261-001Z	CRYSTAL		

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

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	C 1	QCZ9019-472	C.CAPACITOR	4700PF	
	C 51	QFN32AK-472Z	M.CAPACITOR	4700PF 10% 100V	
	C 52	QETM1EM-108	E CAPACITOR	1000MF 20% 25V	
	C 54	QETN1CM-477Z	E CAPACITOR	470MF 20% 16V	
	C 55	QCF31HZ-472Z	C CAPACITOR	4700PF +80:-20%	
	C 56	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 61	QFN32AJ-104Z	M.CAPACITOR	.10MF 5% 100V	
	C 62	QFN32AJ-104Z	M.CAPACITOR	.10MF 5% 100V	
	C 63	QFN32AJ-104Z	M.CAPACITOR	.10MF 5% 100V	
	C 65	QETM1VM-338	E CAPACITOR	3300MF 20% 35V	
	C 66	QETM1VM-108	E.CAPACITOR	1000MF 20% 35V	
	C 67	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 68	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 69	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 70	QETN1HM-227Z	E CAPACITOR	220MF 20% 50V	
	C 71	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C 72	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 73	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 74	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 93	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 94	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 705	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 706	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 711	QFLC1HJ-152Z	M CAPACITOR	1500PF 5% 50V	
	C 712	QFLC1HJ-152Z	M CAPACITOR	1500PF 5% 50V	
	C 713	QCS11HJ-680	C CAPACITOR	68PF 5% 50V	
	C 714	QCS11HJ-680	C CAPACITOR	68PF 5% 50V	
	C 715	QCS11HJ-680	C CAPACITOR	68PF 5% 50V	
	C 716	QCS11HJ-680	C CAPACITOR	68PF 5% 50V	
	C 717	QCS32HJ-220Z	C CAPACITOR	22PF 5% 500V	
	C 718	QCS32HJ-220Z	C CAPACITOR	22PF 5% 500V	
	C 813	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 814	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 815	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 981	QFLC1HJ-392Z	M CAPACITOR	3900PF 5% 50V	
	C 983	QCS11HJ-821	C CAPACITOR	820PF 5% 50V	
	C 984	QCS11HJ-821	C CAPACITOR	820PF 5% 50V	
	C 985	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 986	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C 987	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 988	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C 989	QCS11HJ-561	C CAPACITOR	560PF 5% 50V	
	C 990	QCS11HJ-561	C CAPACITOR	560PF 5% 50V	
	C 991	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 992	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 993	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	CN 51	QGB2510J1-08	CONNECTOR		
	CN 52	QGB2510J1-08	CONNECTOR		
	CN 53	QGB2510J1-05	CONNECTOR		
	CN 55	QGD2501C1-03Z	SOCKET		
	CN 56	QGD2501C1-04Z	SOCKET		
	CN402	QGF1205C1-21	CONNECTOR		
	CN701	QJP002-021401	SHI CR C-B WIRE		
	CN702	QJP001-031401	SHI CR C-B WIRE		
	CN703	WJK0034-001A	SKT WIRE ASSY	(WITH CN803)	
	CN705	QGB2510K1-12	CONNECTOR		
	CN811	QGA3901F2-03	CONNECTOR		
	CN952	QJK015-062801	SIN CR C-B WIRE		
	CN953	QGA3901C1-06	6P PLUG ASSY		
	C1701	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1702	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C1703	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	C1704	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C1705	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C1711	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C1712	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C1713	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C1715	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C1741	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C1742	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C1743	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1751	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C1752	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C1761	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1762	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1791	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C1801	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1802	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1803	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C1804	QCS11HJ-101	C CAPACITOR	100PF 5% 50V	
	C1805	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	C1806	QCS11HJ-221	C CAPACITOR	220PF 5% 50V	
	C1807	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1808	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1809	QCS31HJ-5R0Z	C CAPACITOR	5.0PF 5% 50V	
	C1810	QCS31HJ-5R0Z	C CAPACITOR	5.0PF 5% 50V	
	C1811	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C1812	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C1813	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C1814	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C1815	QEKC1HM-225Z	E.CAPACITOR	2.2MF 20% 50V	
	C1816	QEKC1HM-225Z	E.CAPACITOR	2.2MF 20% 50V	
	C1817	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C1818	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C1841	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C1842	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C1843	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1851	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C1852	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C1853	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C1854	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C1861	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1862	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1863	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1864	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C1891	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
	C1892	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%	
⚠	D 51	1SR35-400A-T5	DIODE		
⚠	D 52	1SR35-400A-T5	DIODE		
⚠	D 53	1SR35-400A-T5	DIODE		
⚠	D 54	1SR35-400A-T5	DIODE		
	D 56	MTZJ6.2A-T2	Z.DIODE IDM		
	D 57	1SS133-T2	SI DIODE		
⚠	D 61	10E2-FD	DIODE		
⚠	D 62	1SR35-400A-T5	DIODE		
⚠	D 63	10E2-FD	DIODE		
⚠	D 64	1SR35-400A-T5	DIODE		
	D 65	1SS133-T2	SI DIODE		
⚠	D 71	1SR35-400A-T5	DIODE		
⚠	D 72	1SR35-400A-T5	DIODE		
⚠	D 73	1SR35-400A-T5	DIODE		
	D 74	MTZJ33C-T2	Z DIODE		
	D 75	MTZJ6.2C-T2	Z DIODE		
	D 701	1SS133-T2	SI DIODE		
	D 702	1SS133-T2	SI DIODE		
	D 703	1SS133-T2	SI DIODE		

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

⚠	Item	Parts number	Parts name	Remarks	Area
	D 704	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	MTZJ5.1C-T2	ZENER DIODE		
	D 981	1SS133-T2	SI DIODE		
	D 982	1SS133-T2	SI DIODE		
	D1701	1SS133-T2	SI DIODE		
	D1702	MTZJ18C-T2	Z.DIODE		
	D1771	1SS133-T2	SI DIODE		
	D1772	1SS133-T2	SI DIODE		
	D1791	1SS133-T2	SI DIODE		
	D1801	1SS133-T2	SI DIODE		
	D1802	1SS133-T2	SI DIODE		
	D1805	MTZJ18C-T2	Z.DIODE		
	D1871	1SS133-T2	SI DIODE		
	D1872	1SS133-T2	SI DIODE		
	D1873	1SS133-T2	SI DIODE		
	D1874	1SS133-T2	SI DIODE		
	D1891	1SS133-T2	SI DIODE		
	D1892	1SS133-T2	SI DIODE		
	EP 1	E409182-001SM	GRAND TERMINAL		
	EP 2	QNZ0136-001Z	EARTH PLATE		
	EP 51	QNZ0136-001Z	EARTH PLATE		
	FC 1	QNG0020-001Z	FUSE CLIP	F001	
	FC 2	QNG0020-001Z	FUSE CLIP	F001	
	FC 3	QNG0020-001Z	FUSE CLIP	F002	
	FC 4	QNG0020-001Z	FUSE CLIP	F002	
	FC 61	QNG0020-001Z	FUSE CLIP	F061	
	FC 62	QNG0020-001Z	FUSE CLIP	F061	
	FC 63	QNG0020-001Z	FUSE CLIP	F062	
	FC 64	QNG0020-001Z	FUSE CLIP	F062	
	FW 51	QUM137-10DGZ4	PARA RIBON WIRE		
	FW901	QUM133-08DGZ4	PARA RIBON WIRE		
	FW962	QUM135-15DGZ4	PARA RIBON WIRE		
	J 91	QNS0023-001	JACK		
	L1761	QQLZ005-R45	INDUCTOR		
	L1762	QQLZ005-R45	INDUCTOR		
	L1861	QQLZ005-R45	INDUCTOR		
	L1862	QQLZ005-R45	INDUCTOR		
	L1863	QQLZ005-R45	INDUCTOR		
	L1864	QQLZ005-R45	INDUCTOR		
⚠	Q 52	2SC2235/OY/-T	TRANSISTOR		
	O 53	KRC105M-T	D.TRANSISTOR		
	Q 61	KRC107M-T	D.TRANSISTOR		
	O 71	2SB1357/EF/-T	TRANSISTOR		
	O 74	2SC2240/GL/-T	TRANSISTOR		
	O 701	2SC2240-BL/AB/T	TRANSISTOR		
	Q 702	2SC2240-BL/AB/T	TRANSISTOR		
	O 703	2SC2240-BL/AB/T	TRANSISTOR		
	O 704	2SC2240-BL/AB/T	TRANSISTOR		
	O 705	2SA1038S/SE/-T	TRANSISTOR		
	O 706	2SA1038S/SE/-T	TRANSISTOR		
	Q 707	2SA933AS/RS/-T	TRANSISTOR		
	O 708	2SA933AS/RS/-T	TRANSISTOR		
	O 709	2SA1038S/SE/-T	TRANSISTOR		
	O 710	2SA1038S/SE/-T	TRANSISTOR		
	O 711	2SC2389S/SE/-T	TRANSISTOR		
	O 712	2SC2389S/SE/-T	TRANSISTOR		
	Q 805	KRC109M-T	D.TRANSISTOR		
	O 806	KRC109M-T	D.TRANSISTOR		
	O 807	KRC109M-T	D.TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	O 808	KRC109M-T	D.TRANSISTOR		
	Q 809	KRC109M-T	D.TRANSISTOR		
	O 810	KRC109M-T	D.TRANSISTOR		
	O 811	KRC109M-T	D.TRANSISTOR		
	O1701	2SC2240-BL/AB/T	TRANSISTOR		
	O1702	2SC2240-BL/AB/T	TRANSISTOR		
	Q1703	2SA1038S/S/-T	TRANSISTOR		
	O1731	2SD637/QR/	TRANSISTOR		
	O1771	2SC2389S/SE/-T	TRANSISTOR		
	O1772	2SA1038S/SE/-T	TRANSISTOR		
	O1791	2SC2389S/SE/-T	TRANSISTOR		
	O1801	2SC2240-BL/AB/T	TRANSISTOR		
	Q1802	2SC2240-BL/AB/T	TRANSISTOR		
	O1803	2SC2240-BL/AB/T	TRANSISTOR		
	O1804	2SC2240-BL/AB/T	TRANSISTOR		
	O1805	2SA1038S/S/-T	TRANSISTOR		
	O1806	2SA1038S/S/-T	TRANSISTOR		
	O1831	2SD637/QR/	TRANSISTOR		
	Q1832	2SD637/QR/	TRANSISTOR		
	O1871	2SC2389S/SE/-T	TRANSISTOR		
	O1872	2SC2389S/SE/-T	TRANSISTOR		
	O1873	2SA1038S/SE/-T	TRANSISTOR		
	Q1874	2SA1038S/SE/-T	TRANSISTOR		
	O1891	2SC2389S/SE/-T	TRANSISTOR		
	O1892	2SC2389S/SE/-T	TRANSISTOR		
⚠	R 53	QRZ9005-180X	F.RESISTOR	18 1/4W	
	R 54	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
⚠	R 55	QRT022J-1R0	MF RESISTOR	1.0 5% 1/2W	
⚠	R 61	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
⚠	R 62	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
⚠	R 66	QRJ146J-2R2X	UNF C.RESISTOR	2.2 5% 1/4W	
⚠	R 67	QRJ146J-120X	UNF C.RESISTOR	12 5% 1/4W	
	R 68	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 69	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R 70	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
⚠	R 72	QRJ146J-332X	UNF C.RESISTOR	3.3K 5% 1/4W	
	R 73	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 74	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R 91	QRL022J-471	UNF OMF.RES.	470 5% 1/2W	
⚠	R 92	QRL022J-471	UNF OMF.RES.	470 5% 1/2W	
	R 705	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 706	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 707	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 708	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R 709	QRE141J-912Y	C RESISTOR	9.1K 5% 1/4W	
	R 710	QRE141J-912Y	C RESISTOR	9.1K 5% 1/4W	
⚠	R 717	QRJ146J-562X	UNF C.RESISTOR	5.6K 5% 1/4W	
⚠	R 718	QRJ146J-562X	UNF C.RESISTOR	5.6K 5% 1/4W	
⚠	R 719	QRK126J-103X	UNF.C.RESISTOR	10K 5% 1/2W	
⚠	R 720	QRK126J-103X	UNF.C.RESISTOR	10K 5% 1/2W	
⚠	R 721	QRJ146J-151X	UNF C.RESISTOR	150 5% 1/4W	
⚠	R 722	QRJ146J-151X	UNF C.RESISTOR	150 5% 1/4W	
	R 723	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 724	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 725	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 726	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 727	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R 728	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R 729	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 730	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 731	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 732	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 733	QRE141J-101Y	C RESISTOR	100 5% 1/4W	

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

⚠	Item	Parts number	Parts name	Remarks	Area
	R 734	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 941	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 942	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 943	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 944	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 945	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 946	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
⚠	R 981	QRJ146J-101X	UNF C.RESISTOR	100 5% 1/4W	
⚠	R 982	QRJ146J-101X	UNF C.RESISTOR	100 5% 1/4W	
⚠	R 985	QRJ146J-2R7X	UNF C.RESISTOR	2.7 5% 1/4W	
⚠	R 987	QRJ146J-2R7X	UNF C.RESISTOR	2.7 5% 1/4W	
⚠	R 988	QRJ146J-2R7X	UNF C.RESISTOR	2.7 5% 1/4W	
	R 991	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 992	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 993	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
⚠	R 999	QRJ146J-392X	UNF C. RESISTOR	3.9K 5% 1/4W	
⚠	RY 1	QSK0098-001	RELAY		
	RY981	QSK0109-001	RELAY		
	RY982	QSK0109-001	RELAY		
	R1701	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1702	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
	R1703	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R1705	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1711	QRE141J-911Y	C RESISTOR	910 5% 1/4W	
	R1712	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1721	QRJ146J-221X	UNF C.RESISTOR	220 5% 1/4W	
	R1722	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1723	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1724	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1725	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1731	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R1732	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
⚠	R1742	QRJ146J-331X	UNF C.RESISTOR	330 5% 1/4W	
⚠	R1743	QRL022J-562	UNF.OMF.RES.	5.6K 5% 1/2W	
⚠	R1751	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R1752	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R1753	QRZ0196-R22	EMIT.RESISTOR	7W	
⚠	R1761	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W	
⚠	R1762	QRL022J-100	UNF.OMF.RES.	10 5% 1/2W	
	R1771	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1772	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1773	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R1774	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R1791	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1792	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R1793	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1794	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1801	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1802	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1803	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
	R1804	QRE141J-124Y	C RESISTOR	120K 5% 1/4W	
	R1805	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R1806	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R1809	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1810	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1811	QRE141J-911Y	C RESISTOR	910 5% 1/4W	
	R1812	QRE141J-911Y	C RESISTOR	910 5% 1/4W	
	R1813	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1814	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R1821	QRJ146J-221X	UNF C.RESISTOR	220 5% 1/4W	
⚠	R1822	QRJ146J-221X	UNF C.RESISTOR	220 5% 1/4W	
	R1823	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1824	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R1825	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1826	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1827	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1828	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1829	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1830	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1831	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R1832	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R1833	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1834	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
⚠	R1842	QRJ146J-181X	UNF C.RESISTOR	180 5% 1/4W	
⚠	R1843	QRL022J-562	UNF.OMF.RES.	5.6K 5% 1/2W	
⚠	R1851	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R1852	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R1853	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R1854	QRJ146J-100X	UNF.C RESISTOR	10 5% 1/4W	
⚠	R1855	QRZ0196-R22	EMIT.RESISTOR	1/1W	
⚠	R1856	QRZ0196-R22	EMIT.RESISTOR	1/1W	
⚠	R1861	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W	
⚠	R1862	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W	
⚠	R1863	QRL022J-100	UNF.OMF.RES.	10 5% 1/2W	
⚠	R1864	QRL022J-100	UNF.OMF.RES.	10 5% 1/2W	
	R1871	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1872	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1873	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1874	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1875	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R1876	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R1877	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R1878	QRE141J-201Y	C RESISTOR	200 5% 1/4W	
	R1891	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1892	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1893	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R1894	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R1895	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1896	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1897	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1898	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	ST981	QNB0016-001	SPK TERMINAL		
⚠	T 2	QQT0281-002	POWER TRANSF		
	TA 1	QNZ0079-001Z	TAB		
	TA 2	QNZ0079-001Z	TAB		
⚠	TH 71	QAD0095-4R7Z	POSISTOR		
⚠	TH731	QAD0012-202	THERMISTOR		
⚠	TH831	QAD0012-202	THERMISTOR		
⚠	TH832	QAD0012-202	THERMISTOR		

■ **Electrical parts list(AC-3 board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-102X	C CAPACITOR		
	C 602	NCB31HK-102X	C CAPACITOR		
	C 603	NEA70JM-476X	E.CAPACITOR		
	C 604	NEA70JM-476X	E.CAPACITOR		
	C 605	NCB31CK-104X	C CAPACITOR		
	C 606	NCB31CK-104X	C CAPACITOR		
	C 607	NEA71CM-476X	E CAPACITOR		
	C 608	NCF31CZ-104X	C CAPACITOR		
	C 609	NCB31CK-104X	C CAPACITOR		
	C 610	NEA70JM-476X	E.CAPACITOR		
	C 611	NEA70JM-226X	E CAPACITOR		
	C 612	NCB31CK-103X	C CAPACITOR		
	C 621	NEA71HM-105X	E.CAPACITOR		
	C 622	NCB31HK-101X	C CAPACITOR		
	C 623	NCB30JK-105X	C CAPACITOR		
	C 624	NCB31CK-104X	C CAPACITOR		
	C 625	NCB31CK-104X	C CAPACITOR		
	C 628	NCB31CK-103X	C CAPACITOR		
	C 631	NEA70GM-107X	E CAPACITOR		
	C 632	NCB31CK-103X	C CAPACITOR		
	C 633	NCB31CK-104X	C CAPACITOR		
	C 634	NCB31CK-104X	C CAPACITOR		
	C 635	NCB31CK-104X	C CAPACITOR		
	C 636	NCB31CK-104X	C CAPACITOR		
	C 637	NCB31CK-104X	C CAPACITOR		
	C 638	NEA70JM-476X	E.CAPACITOR		
	C 639	NCB31CK-103X	C CAPACITOR		
	C 641	NEA70JM-107X	E.CAPACITOR		
	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	NEA70GM-107X	E CAPACITOR		
	C 661	NCB31CK-103X	C CAPACITOR		
	C 671	NCB31CK-103X	C CAPACITOR		
	C 672	NEA70GM-107X	E CAPACITOR		
	C 673	NCB31CK-103X	C CAPACITOR		
	C 677	NCB31HK-101X	C CAPACITOR		
	C 679	NCB31HK-101X	C CAPACITOR		
	C 681	NCB31CK-103X	C CAPACITOR		
	C 682	NCB31CK-103X	C CAPACITOR		
	C 683	NCB31CK-103X	C CAPACITOR		
	C 684	NEA70JM-107X	E.CAPACITOR		
	C 685	NEA71CM-476X	E CAPACITOR		
	C 686	NEA71CM-476X	E CAPACITOR		
	C 687	NCB31CK-103X	C CAPACITOR		
	C 688	NEA70JM-107X	E.CAPACITOR		
	C 689	NCB31CK-103X	C CAPACITOR		
	C 690	NEA70JM-107X	E.CAPACITOR		
	C 691	NEA71HM-105X	E.CAPACITOR		
	C 692	NEA71HM-105X	E.CAPACITOR		
	C 693	NCB31CK-103X	C CAPACITOR		
	C 694	NCB31CK-103X	C CAPACITOR		
	C 695	NEA71HM-105X	E.CAPACITOR		
	C 696	NEA71HM-105X	E.CAPACITOR		
	C 697	NEA71HM-105X	E.CAPACITOR		
	C 698	NEA71HM-105X	E.CAPACITOR		
	CN681	QGB1214K3-18W	CONNECTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	CN687	QGB1214K3-12W	CONNECTOR		
	C2500	NEA71CM-226X	E.CAPACITOR		
	C2501	NCB31AK-474X	C CAPACITOR		
	C2503	NEA71EM-475X	E.CAPACITOR		
	C2504	NEA71EM-475X	E.CAPACITOR		
	C2505	NCS31HJ-560X	C CAPACITOR		
	C2506	NCS31HJ-560X	C CAPACITOR		
	C2507	NCS31HJ-560X	C CAPACITOR		
	C2508	NCS31HJ-560X	C CAPACITOR		
	C2509	NCF31CZ-104X	C CAPACITOR		
	C2510	NCF31CZ-104X	C CAPACITOR		
	C2511	NCB31AK-474X	C CAPACITOR		
	C2512	NCB31AK-474X	C CAPACITOR		
	C2513	NCB31CK-183X	C CAPACITOR		
	C2514	NCB31CK-183X	C CAPACITOR		
	C2515	NCB31HK-182X	C CAPACITOR		
	C2516	NCB31HK-182X	C CAPACITOR		
	C2517	NCB31HK-562X	C CAPACITOR		
	C2518	NCB31HK-562X	C CAPACITOR		
	C2519	NCF31CZ-104X	C CAPACITOR		
	C2520	NCF31CZ-104X	C CAPACITOR		
	C2521	NCB31CK-103X	C CAPACITOR		
	C2522	NCB31CK-103X	C CAPACITOR		
	C2523	NCB31HK-272X	C CAPACITOR		
	C2524	NCB31HK-272X	C CAPACITOR		
	C2525	NCB31HK-392X	C CAPACITOR		
	C2526	NCB31HK-392X	C CAPACITOR		
	C2527	NEA71HM-225X	E.CAPACITOR		
	C2528	NEA71HM-225X	E.CAPACITOR		
	C2529	NCF31CZ-104X	C CAPACITOR		
	C2530	NCF31CZ-104X	C CAPACITOR		
	C2531	NCS31HJ-560X	C CAPACITOR		
	C2532	NCS31HJ-560X	C CAPACITOR		
	C2533	NEA71EM-475X	E.CAPACITOR		
	C2534	NEA71EM-475X	E.CAPACITOR		
	C2539	NCF31CZ-104X	C CAPACITOR		
	C2540	NCF31CZ-104X	C CAPACITOR		
	C2541	NCS31HJ-560X	C CAPACITOR		
	C2542	NCS31HJ-560X	C CAPACITOR		
	C2543	NEA71EM-475X	E.CAPACITOR		
	C2544	NEA71EM-475X	E.CAPACITOR		
	C2549	NCF31CZ-104X	C CAPACITOR		
	C2550	NCF31CZ-104X	C CAPACITOR		
	C2551	NCS31HJ-560X	C CAPACITOR		
	C2552	NCS31HJ-560X	C CAPACITOR		
	C2553	NCB31HK-562X	C CAPACITOR		
	C2554	NCB31HK-562X	C CAPACITOR		
	C2555	NCF31CZ-104X	C CAPACITOR		
	C2556	NCF31CZ-104X	C CAPACITOR		
	C2559	NCF31CZ-104X	C CAPACITOR		
	C2560	NCF31CZ-104X	C CAPACITOR		
	C2561	NEA71HM-105X	E.CAPACITOR		
	C2562	NEA71HM-105X	E.CAPACITOR		
	C2563	NCS31HJ-220X	C CAPACITOR		
	C2564	NCS31HJ-220X	C CAPACITOR		
	C2569	NCF31CZ-104X	C CAPACITOR		
	C2570	NCF31CZ-104X	C CAPACITOR		
	C2571	NCB31CK-103X	C CAPACITOR		
	C2572	NCB31CK-103X	C CAPACITOR		
	C2573	NCB31HK-272X	C CAPACITOR		
	C2574	NCB31HK-272X	C CAPACITOR		
	C2575	NCB31HK-392X	C CAPACITOR		
	C2576	NCB31HK-392X	C CAPACITOR		

■ **Electrical parts list (AC-3 board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	C2577	NEA71HM-225X	E.CAPACITOR		
	C2578	NEA71HM-225X	E.CAPACITOR		
	C2579	NCF31CZ-104X	C CAPACITOR		
	C2580	NCF31CZ-104X	C CAPACITOR		
	C2581	NEA71HM-105X	E.CAPACITOR		
	C2582	NEA71CM-106X	E.CAPACITOR		
	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	NEA71CM-106X	E.CAPACITOR		
	C2589	NCF31CZ-104X	C CAPACITOR		
	C2590	NCF31CZ-104X	C CAPACITOR		
	C2591	NCB31CK-103X	C CAPACITOR		
	C2592	NCB31HK-223X	C CAPACITOR		
	C2593	NCB31HK-272X	C CAPACITOR		
	C2594	NCB31CK-104X	C CAPACITOR		
	C2595	NCB31HK-392X	C CAPACITOR		
	C2597	NEA71HM-225X	E.CAPACITOR		
	C2598	NEA71EM-475X	E.CAPACITOR		
	C2599	NCF31CZ-104X	C CAPACITOR		
	C2600	NCF31CZ-104X	C CAPACITOR		
	D 602	1SS355-X	DIODE		
	D 607	1SS355-X	DIODE		
	D 608	1SS355-X	DIODE		
	EP601	E409182-001SM	GRAND TERMINAL		
	IC501	BA15218F-XE	IC		
	IC510	BA15218F-XE	IC		
	IC511	BA15218F-XE	IC		
	IC521	BA15218F-XE	IC		
	IC531	BA15218F-XE	IC		
	IC541	BA15218F-XE	IC		
	IC551	BA15218F-XE	IC		
	IC561	BA15218F-XE	IC		
	IC571	BA15218F-XE	IC		
	IC581	BA15218F-XE	IC		
	IC591	BA15218F-XE	IC		
	IC592	BA15218F-XE	IC		
	IC601	AK4527VQ	IC		
	IC602	BU4066BCF-X	IC		
	IC611	BU4066BCF-X	IC		
	IC621	TC7SU04FU-X	IC		
	IC622	TC7SU04FU-X	IC		
	IC631	TC9446F-014	IC		
	IC641	W24L011AJ-15-X	IC		
	IC671	UPD784215AGC103	1C		
	IC672	TC7SET32FU-X	IC		
⚠	IC681	PQ3DZ53-X	IC		
	IC683	PQ3DZ53-X	IC		
	J 601	EMN00TV-107A	PIN JACK		
	K 501	NQR0269-007X	FERRITE BEADS		
	K 502	NQR0269-007X	FERRITE BEADS		
	K 503	NQR0269-007X	FERRITE BEADS		
	K 504	NQR0269-007X	FERRITE BEADS		
	K 531	NQR0269-007X	FERRITE BEADS		
	K 532	NQR0269-007X	FERRITE BEADS		
	K 541	NQR0269-007X	FERRITE BEADS		
	K 542	NQR0269-007X	FERRITE BEADS		
	K 561	NQR0269-007X	FERRITE BEADS		
	K 562	NQR0269-007X	FERRITE BEADS		
	K 581	NQR0269-007X	FERRITE BEADS		
	K 582	NQR0269-007X	FERRITE BEADS		

⚠	Item	Parts number	Parts name	Remarks	Area
	K 601	NQR0269-007X	FERRITE BEADS		
	K 611	NQR0269-007X	FERRITE BEADS		
	K 612	NQR0269-007X	FERRITE BEADS		
	K 613	NQR0269-007X	FERRITE BEADS		
	K 614	NQR0269-007X	FERRITE BEADS		
	K 615	NQR0269-007X	FERRITE BEADS		
	K 616	NQR0269-007X	FERRITE BEADS		
	K 617	NQR0269-007X	FERRITE BEADS		
	K 618	NQR0269-007X	FERRITE BEADS		
	K 619	NQR0269-007X	FERRITE BEADS		
	K 620	NQR0269-007X	FERRITE BEADS		
	K 621	NQR0269-007X	FERRITE BEADS		
	K 622	NQR0269-007X	FERRITE BEADS		
	K 687	NQR0319-001X	F.BEADS C.M		
	L 661	NQL024J-470X	INDUCTOR CM		
	L 662	NQL024J-470X	INDUCTOR CM		
	L 663	NQL024J-470X	INDUCTOR CM		
	LC601	NQR0321-001X	EMI FILTER C.M		
	LC632	NQR0321-001X	EMI FILTER C.M		
	LC641	NQR0321-001X	EMI FILTER C.M		
	LC671	NQR0321-001X	EMI FILTER C.M		
	O 601	DTC114YE-X	TRANSISTOR		
	O 607	DTA144EKA-X	TRANSISTOR		
	O 670	DTC114YE-X	TRANSISTOR		
	O 671	2SD1328/ST/-X	TRANSISTOR		
	Q 672	DTC114YE-X	TRANSISTOR		
	O 673	DTA144EKA-X	TRANSISTOR		
	O 674	DTC114YE-X	TRANSISTOR		
	O 675	DTC114YE-X	TRANSISTOR		
	O2501	DTA144EKA-X	TRANSISTOR		
	O2521	2SD1328/ST/-X	TRANSISTOR		
	O2522	2SD1328/ST/-X	TRANSISTOR		
	O2561	2SD1328/ST/-X	TRANSISTOR		
	O2562	2SD1328/ST/-X	TRANSISTOR		
	Q2581	2SD1328/ST/-X	TRANSISTOR		
	O2582	2SD1328/ST/-X	TRANSISTOR		
	R 601	NRSA63J-473X	MG RESISTOR		
	R 602	NRSA63J-473X	MG RESISTOR		
	R 603	NRSA63J-473X	MG RESISTOR		
	R 604	NRSA63J-473X	MG RESISTOR		
	R 605	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 610	NRSA63J-221X	MG RESISTOR		
	R 611	NRSA63J-332X	MG RESISTOR		
	R 612	NRSA63J-103X	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 619	NRSA63J-221X	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 625	NRSA63J-101X	MG RESISTOR		
	R 627	NRSA63J-472X	MG RESISTOR		
	R 628	NRSA63J-183X	MG RESISTOR		
	R 633	NRSA63J-221X	MG RESISTOR		
	R 639	NRSA63J-472X	MG RESISTOR		
	R 641	NRSA63J-102X	MG RESISTOR		

■ **Electrical parts list (AS-3 board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 642	NRSA63J-103X	MG RESISTOR		
	R 643	NRSA63J-101X	MG RESISTOR		
	R 644	NRSA63J-563X	MG RESISTOR		
	R 645	NRSA63J-102X	MG RESISTOR		
	R 646	NRSA63J-103X	MG RESISTOR		
	R 647	NRSA63J-225X	MG RESISTOR		
	R 648	NRSA63J-472X	MG RESISTOR		
	R 649	NRSA63J-1R0X	MG RESISTOR		
	R 650	NRSA63J-1R0X	MG RESISTOR		
	R 651	NRSA63J-0R0X	MG RESISTOR		
	R 652	NRSA63J-0R0X	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		
	R 681	NRSA63J-103X	MG RESISTOR		
	R 682	NRSA63J-103X	MG RESISTOR		
	R 683	NRSA63J-0R0X	MG RESISTOR		
	R 685	NRSA63J-103X	MG RESISTOR		
	R 686	NRSA63J-151X	MG RESISTOR		
	R 691	NRSA63J-104X	MG RESISTOR		
	R 692	NRSA63J-104X	MG RESISTOR		
	R 695	NRSA63J-104X	MG RESISTOR		
	R 696	NRSA63J-104X	MG RESISTOR		
	R 697	NRSA63J-104X	MG RESISTOR		
	R 698	NRSA63J-104X	MG RESISTOR		
	R2500	NRSA63J-102X	MG RESISTOR		
	R2501	NRSA63J-104X	MG RESISTOR		
	R2502	NRSA63J-104X	MG RESISTOR		
	R2503	NRSA63J-183X	MG RESISTOR		
	R2504	NRSA63J-183X	MG RESISTOR		
	R2505	NRSA63J-103X	MG RESISTOR		
	R2506	NRSA63J-103X	MG RESISTOR		
	R2507	NRSA63J-103X	MG RESISTOR		
	R2508	NRSA63J-103X	MG RESISTOR		
	R2509	NRSA63J-103X	MG RESISTOR		
	R2510	NRSA63J-103X	MG RESISTOR		
	R2511	NRSA63J-102X	MG RESISTOR		
	R2512	NRSA63J-102X	MG RESISTOR		
	R2513	NRSA63J-102X	MG RESISTOR		
	R2514	NRSA63J-102X	MG RESISTOR		
	R2515	NRSA63J-102X	MG RESISTOR		
	R2516	NRSA63J-102X	MG RESISTOR		
	R2517	NRSA63J-102X	MG RESISTOR		
	R2518	NRSA63J-102X	MG RESISTOR		
	R2519	NRSA63J-102X	MG RESISTOR		
	R2520	NRSA63J-102X	MG RESISTOR		
	R2521	NRSA63J-102X	MG RESISTOR		
	R2522	NRSA63J-102X	MG RESISTOR		
	R2523	NRSA63J-102X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R2524	NRSA63J-102X	MG RESISTOR		
	R2525	NRSA63J-102X	MG RESISTOR		
	R2526	NRSA63J-102X	MG RESISTOR		
	R2527	NRSA63J-104X	MG RESISTOR		
	R2528	NRSA63J-104X	MG RESISTOR		
	R2529	NRSA63J-103X	MG RESISTOR		
	R2530	NRSA63J-103X	MG RESISTOR		
	R2531	NRSA63J-113X	MG RESISTOR		
	R2532	NRSA63J-113X	MG RESISTOR		
	R2533	NRSA63J-103X	MG RESISTOR		
	R2534	NRSA63J-103X	MG RESISTOR		
	R2535	NRSA63J-103X	MG RESISTOR		
	R2536	NRSA63J-103X	MG RESISTOR		
	R2537	NRSA63J-104X	MG RESISTOR		
	R2538	NRSA63J-104X	MG RESISTOR		
	R2541	NRSA63J-113X	MG RESISTOR		
	R2542	NRSA63J-113X	MG RESISTOR		
	R2543	NRSA63J-103X	MG RESISTOR		
	R2544	NRSA63J-103X	MG RESISTOR		
	R2545	NRSA63J-562X	MG RESISTOR		
	R2546	NRSA63J-562X	MG RESISTOR		
	R2547	NRSA63J-104X	MG RESISTOR		
	R2548	NRSA63J-104X	MG RESISTOR		
	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-822X	MG RESISTOR		
	R2556	NRSA63J-822X	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		
	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		
	R2571	NRSA63J-102X	MG RESISTOR		
	R2572	NRSA63J-102X	MG RESISTOR		
	R2573	NRSA63J-102X	MG RESISTOR		
	R2574	NRSA63J-102X	MG RESISTOR		
	R2575	NRSA63J-102X	MG RESISTOR		
	R2576	NRSA63J-102X	MG RESISTOR		
	R2577	NRSA63J-104X	MG RESISTOR		
	R2578	NRSA63J-104X	MG RESISTOR		
	R2581	NRSA63J-104X	MG RESISTOR		
	R2582	NRSA63J-104X	MG RESISTOR		
	R2583	NRSA63J-103X	MG RESISTOR		
	R2584	NRSA63J-223X	MG RESISTOR		
	R2585	NRSA63J-302X	MG RESISTOR		
	R2586	NRSA63J-332X	MG RESISTOR		
	R2587	NRSA63J-103X	MG RESISTOR		
	R2588	NRSA63J-103X	MG RESISTOR		
	R2589	NRSA63J-104X	MG RESISTOR		
	R2590	NRSA63J-333X	MG RESISTOR		
	R2591	NRSA63J-102X	MG RESISTOR		
	R2592	NRSA63J-333X	MG RESISTOR		
	R2593	NRSA63J-102X	MG RESISTOR		
	R2594	NRSA63J-333X	MG RESISTOR		

■ **Electrical parts list (AC-3 board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	R2595	NRSA63J-102X	MG RESISTOR		
	R2596	NRSA63J-102X	MG RESISTOR		
	R2597	NRSA63J-104X	MG RESISTOR		
	R2598	NRSA63J-104X	MG RESISTOR		
	UN661	GP1FA550RZ	OPT RECEIVER		
	UN662	GP1FA550RZ	OPT RECEIVER		
	UN663	GP1FA550TZ	OPT TRANSMITTER		
	X 631	NAX0385-001X	CRYSTAL		
	X 671	NAX0275-001X	C OSCIALLATOR		

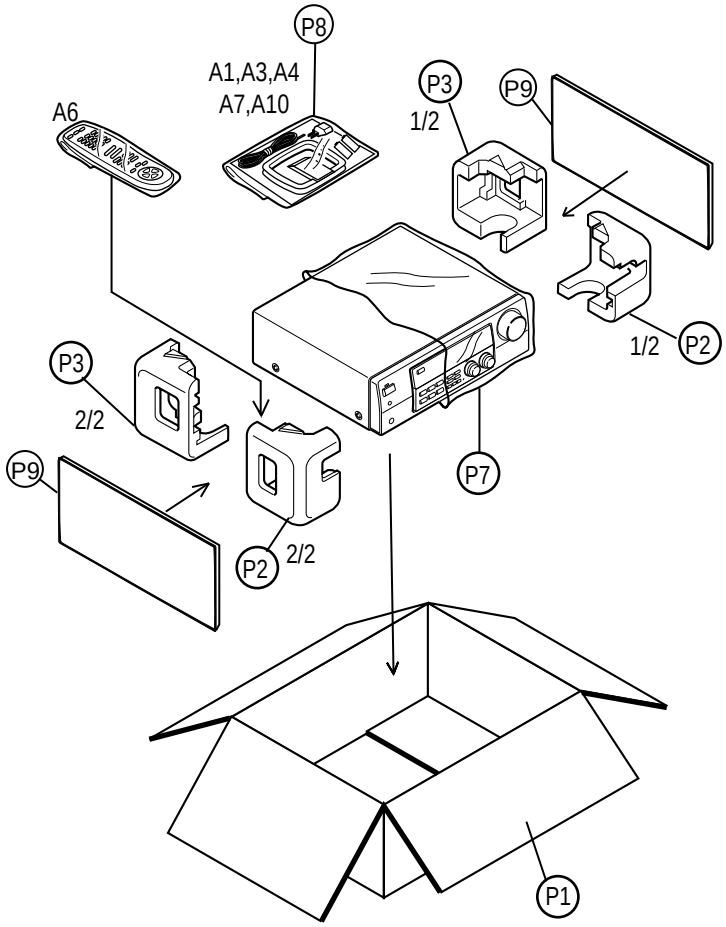
■ **Electrical parts list (Tuner board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	AT101	QNB0014-001	ANT TERMINAL		
	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 113	QCSB1HJ-120Y	C CAPACITOR	12PF 5% 50V	
	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	NCS21HJ-680X	C CAPACITOR		
	C 139	NCB21HK-393X	C CAPACITOR		
	C 140	NCB21HK-393X	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	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 162	QEK41CM-106	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	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 186	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 191	NCS21HJ-820X	C CAPACITOR		
	C 192	NCS21HJ-470X	C CAPACITOR		
	C 193	NCB21HK-561X	C CAPACITOR		
	C 194	NCB21HK-104X	C CAPACITOR		
	C 195	NCB21HK-331X	C.CAPACITOR		
	C 196	QEKC1HM-225Z	E.CAPACITOR	2.2MF 20% 50V	
	C 197	NCB21HK-473X	C CAPACITOR		
	C 199	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	CF101	QAX0285-001Z	C.FILTER		
	CF102	QAX0285-001Z	C.FILTER		
	CF103	QAX0519-001Z	C FILTER		
	CN111	QGB2501K2-12	CONECTOR		
	CN112	QGB2501K1-04	CONNECTOR		
	D 121	1SS133-T2	SI DIODE		
	D 123	1SS133-T2	SI DIODE		
	D 129	1SS133-T2	SI DIODE		
	D 131	1SS133-T2	SI DIODE		
	IC102	LA1838	IC		
	IC121	LC72136N	IC		
	IC191	SAA6588	IC(RDS)		
	L 112	QQL231K-2R7Y	INDUCTOR		
	Q 102	2SC535/BC/-T	TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	Q 103	2SC461/BC/-T	TRANSISTOR		
	Q 111	KTC3199/GL/-T	TRANSISTOR		
	O 112	KTC3199/GL/-T	TRANSISTOR		
	O 113	DTA114YKA-X	TRANSISTOR		
	O 121	KRA103M-T	TRANSISTOR		
	R 103	NRSA02J-101X	MG RESISTOR		
	R 104	NRSA02J-272X	MG RESISTOR		
	R 105	NRSA02J-391X	MG RESISTOR		
	R 106	NRSA02J-102X	MG RESISTOR		
	R 107	NRSA02J-561X	MG RESISTOR		
	R 108	NRSA02J-332X	MG RESISTOR		
	R 109	NRSA02J-221X	MG RESISTOR		
	R 111	NRSA02J-472X	MG RESISTOR		
	R 112	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 114	NRSA02J-122X	MG RESISTOR		
	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-563X	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-472X	MG RESISTOR		
	R 147	NRSA02J-332X	MG RESISTOR		
	R 150	NRSA02J-331X	MG RESISTOR		
	R 157	NRSA02J-272X	MG RESISTOR		
	R 158	NRSA02J-272X	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		
	R 191	NRSA02J-102X	MG RESISTOR		
	R 192	NRSA02J-474X	MG RESISTOR		
	R 193	NRSA02J-103X	MG RESISTOR		
	R 194	NRSA02J-103X	MG RESISTOR		
	RF101	QAU0119-001	FRONT END	FOR FTZ	
	T 111	QQR0871-001	COIL BLOCK		
	T 142	QQR0973-001	IFT		
	X 121	QAX0402-001	CRYSTAL		
	X 191	QAX0263-001Z	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	LV30044-0D1A	CARTON BOX	1		
	P 2	LV20039-002A	PACKING PAD	1		
	P 3	LV20040-001A	PACKING PAD	1		
	P 7	QPC06507015P	POLY BAG	1		
	P 8	QPA02503505P	POLY BAG	1		
	P 9	LV32034-003A	SHEET	2		

■ Parts list (Accessories)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0396-006A	INSTRUCTIONS	1	SWE,FIN,DAN,GER,FRE,DUT	EN
		LVT0396-005A	INSTRUCTIONS	1	ENG,GER,FRE,DUT,SPA,ITA	E
	A 3	EWP503-001C	ANT.WIRE	1		
	A 4	QAL0204-001	AM LOOP ANT	1		
	A 6	RM-SRX7000R	REMOCON	1		
	A 7	----------	BATTERY	1		
	A 10	BT-54008-2	WARRANTY CARD	1		EN
		BT-54013-1	WARRANTY CARD	1		E

JVC

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

No.20846

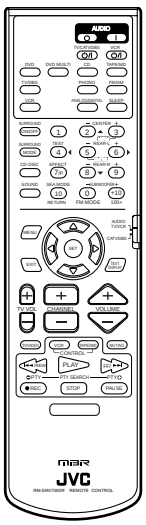
Printed in Japan
2000 07(O)

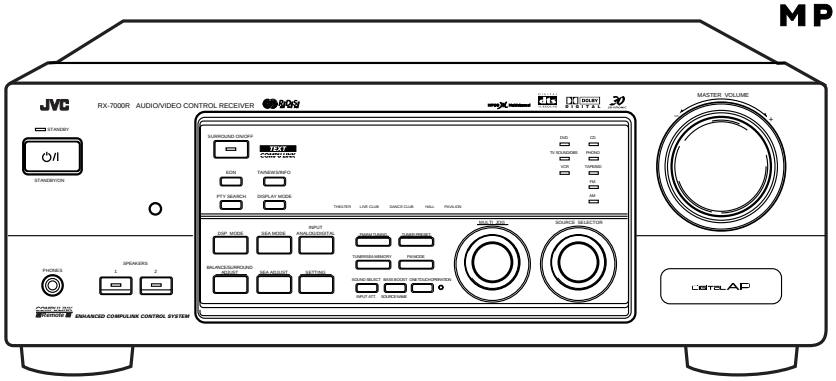
JVC

AUDIO/VIDEO CONTROL RECEIVER

AUDIO/VIDEO-RECEIVER MIT STEUEREINHEIT
AMPLI/TUNER DE COMMANDE AUDIO/VIDEO
GEINTEGREERDE AUDIO/VIDEO-VERSTERKER
RECEPTOR DE CONTROL DE AUDIO/VÍDEO
RICEVITORE DI CONTROLLO AUDIO/VIDEO

RX-7000RBK





INSTRUCTIONS

BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTIONS
GEBRUIKSAANWIJZING
MANUAL DE INSTRUCCIONES
ISTRUZIONI

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. _____

LVT0396-005A
[E]

Warnings, Cautions and Others/Warnung, Achtung und sonstige Hinweise/ Mises en garde, précautions et indications diverses/Waarschuwingen, voorzorgen en andere mededelingen/Avisos, precauciones y otras notas/ Avvertenze e precauzioni da osservare

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT.

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

Per l'Italia:
"Si dichiara che il questo prodotto di marca JVC è conforme alle prescrizioni del Decreto Ministeriale n.548 del 28/08/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95."

Caution –– STANDBY/ON ⏻/I switch!
Disconnect the mains plug to shut the power off completely. The STANDBY/ON ⏻/I switch in any position does not disconnect the mains line. The power can be remote controlled.

Achtung –– STANDBY/ON ⏻/I-Schalter!
Den Netzstecker aus der Steckdose ziehen, um die Stromversorgung vollkommen zu unterbrechen. Der Schalter STANDBY/ON ⏻/I unterbrichet in keiner Stellung die Stromversorgung vollkommen. Die Stromversorgung kann mit der Fernbedienung ein- und ausgeschaltet werden.

Attention –– Commutateur STANDBY/ON ⏻/I!
Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur STANDBY/ON ⏻/I ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

Voorzichtig –– STANDBY/ON ⏻/I schakelaar!
Om de stroomtoevoer geheel uit te schakelen, trekt u de stekker uit het stopkontakt. Anders zal er altijd een geringe hoeveelheid stroom naar het apparaat lopen, ongeacht de stand van de STANDBY/ON ⏻/I schakelaar. U kunt het apparaat ook met de afstandsbediening aan- en uitschakelen.

Precaución –– Interruptor STANDBY/ON ⏻/I!
Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajuste del interruptor STANDBY/ON ⏻/I, la alimentación no es cortada completamente. La alimentación puede ser controlada remotamente.

Attenzione –– L'interruttore STANDBY/ON ⏻/I!
Disinserire la spina del cavo di alimentazione dalla presa della rete elettrica per staccare completamente l'alimentazione. L'interruttore STANDBY/ON ⏻/I in nessuna posizione stacca la linea di alimentazione elettrica principale. È possibile il controllo remoto dell'alimentazione.

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.

ACHTUNG
Zur Verhinderung von elektrischen Schlägen, Brandgefahr, usw:
1. Keine Schrauben lösen oder Abdeckungen enternen und nicht das Gehäuse öffnen.
2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

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.

VOORZICHTIG
Ter vermindering van gevaar voor brand, elektrische schokken, enz.:
1. Verwijder geen schroeven, panelen of de behuizing.
2. Stel dit toestel niet bloot aan regen of vocht.

PRECAUCIÓN
Para reducir riesgos de choques eléctricos, incendio, etc.:
1. No extraiga los tornillos, los cubiertas ni la caja.
2. No exponga este aparato a la lluvia o a la humedad.

ATTENZIONE
Per ridurre il rischio di scosse elettriche, incendi, ecc...
1. Non togliere viti, coperchi o la scatola.
2. Non esporre l'apparecchio alla piogggia e all'umidità.

Caution: Proper Ventilation
To avoide 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.

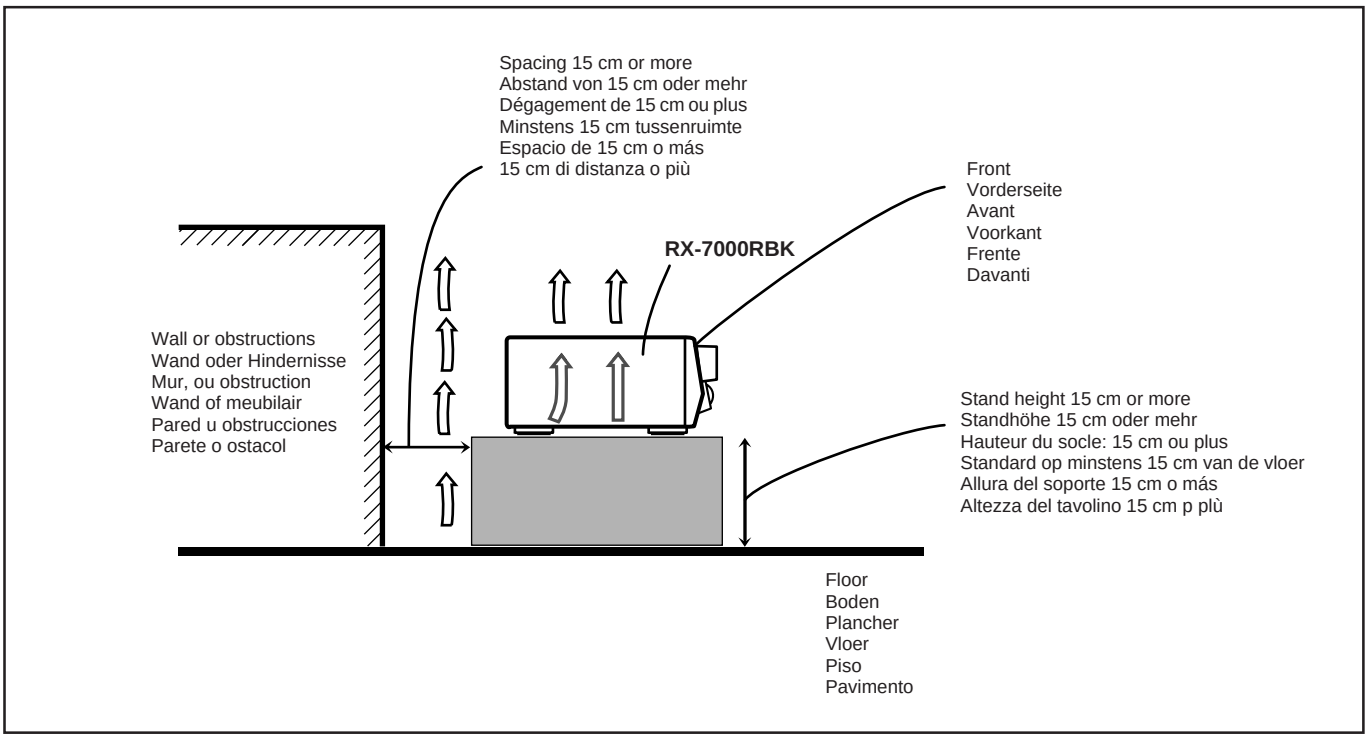
Achtung: Angemessene Ventilation
Stellen Sie das Gerät zur Verhütung von elektrischem Schlag und Feuer und zum Schutz gegen Beschädigung wie folgt auf:
Vorderseite: Offener Platz ohne Hindernisse.
Seiten: Keine Hindernisse innerhalb 10 cm von den Seiten.
Oberseite: Keine Hindernisse innerhalb 10 cm von der Oberseite.
Rückseite: Keine Hindernisse innerhalb 15 cm von der Rückseite.
Unterseite: Keine Hindernisse. Auf eine ebene Oberfläche stellen.
Zusätzlich die bestmögliche Luftzirkulation wie gezeigt erhalten.

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.

Voorzichtig: Zorg Voor Goede Ventilatie
Om gevaar voor brand of een elektrische schok te voorkomen, dient u bij opstelling van het apparaat op de volgende punten te letten:
Voorkant: Voldoende ruimte vrij houden.
Zijkanten: Minstens 10 cm aan weerszijden vrij houden.
Bovenkant: Niets bovenop plaatsen; 10 cm speling geven.
Achterkant: Minstens 15 cm ruimte achteraan vrij houden.
Onderkant: Opstellen op een egaal horizontaal oppervlak.
Bovendien moet er rondom voldoende luchtdoorstroming zijn, zoals in de afbeelding aangegeven.

Precaución: Ventilación Adecuada
Para evitar el riesgo de choque eléctrico e incendio y para proteger el aparato contra daños.
Ubique el aparato de la siguiente manera:
Frente: Espacio abierto sin obstrucciones
Lados: 10 cm sin obstrucciones a los lados
Parte superior: 10 cm sin obstrucciones en la parte superior
Parte trasera: 15 cm sin obstrucciones en la parte trasera
Fondo: Sin obstrucciones, colóquelo sobre una superficie nivelada
Además, mantenga la mejor circulación de aire posible como se ilustra.

Attenzione: Problemi di Ventilazione
Per evitare il rischio di folgorazioni ed incendi e proteggere l'unità da danni, installarla nel modo seguente.
Davanti: Nessun ostacolo, spazio libero
Lati: Nessun ostacolo per almeno 10 cm
Sopra: Nessun ostacolo per almeno 10 cm
Retro: Nessun ostacolo per almeno 15 cm
Fondo: Libero ed in piano
Inoltre, mantenere il più possibile la circolazione dell'aria.



English

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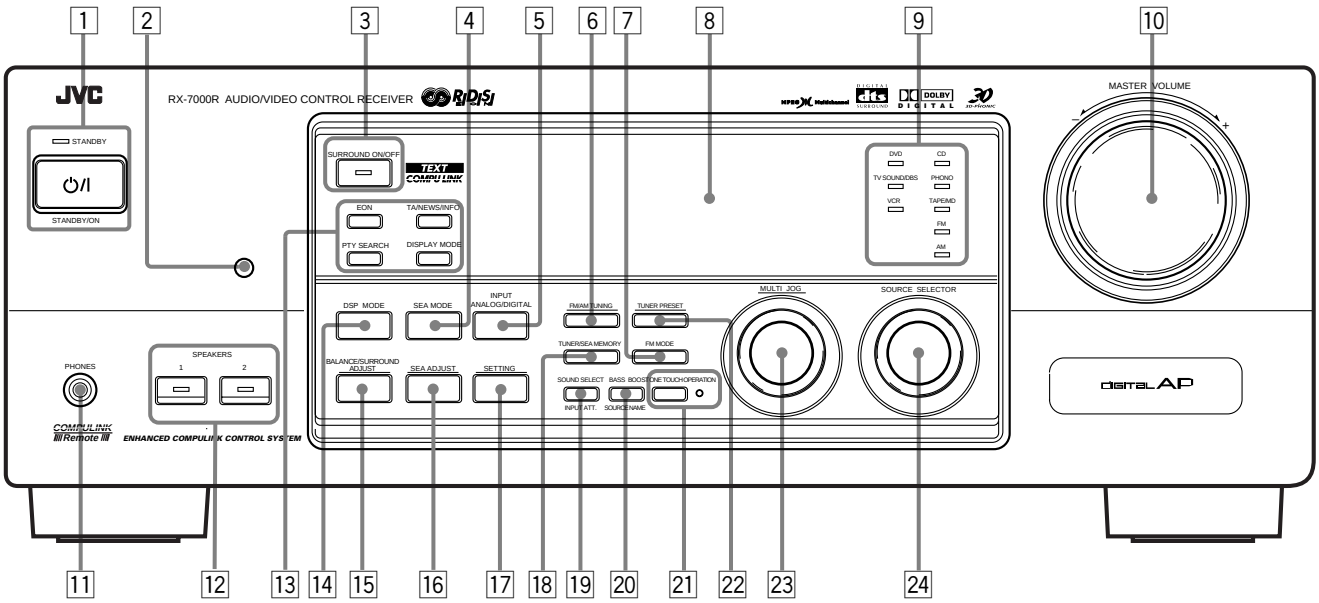
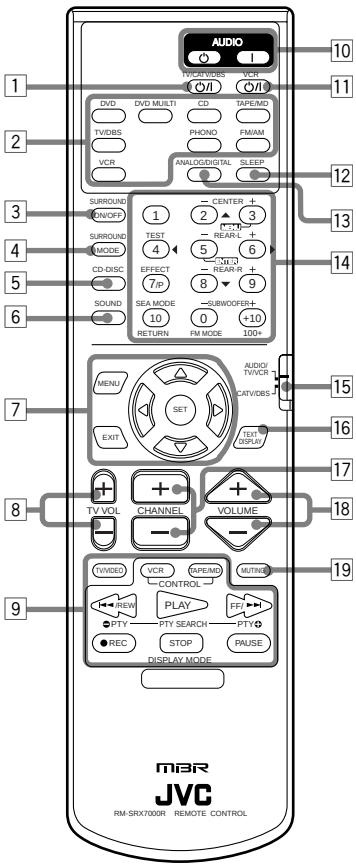
Parts Identification

Become familiar with the buttons and controls on the receiver before use.
Refer to the pages in parentheses for details.





Remote Control

1. TV/CATV/DBS ⏻/I button (47 – 49)
2. Source selecting buttons (10)
   DVD, DVD MULTI, CD, TAPE/MD, TV/DBS, PHONO, FM/AM, VCR
3. SURROUND ON/OFF button (29, 31)
4. SURROUND MODE button (28, 29)
5. CD-DISC button (46)
6. SOUND button (24, 28, 33)
7. On-screen operation buttons (34, 41)
   MENU, SET, EXIT, △, ▽, ◁, ▷
8. TV VOL +/– buttons (47, 48)
9. • RDS operation buttons (21 – 23)
   PTY SEARCH, PTY –/+, DISPLAY MODE
   • Operating buttons for audio/video components (45 – 49)
10. AUDIO buttons (10)
    ⏻ , I
11. VCR ⏻/I button (47, 49)
12. SLEEP button (18)
13. ANALOG/DIGITAL button (17)
14. • 10 keys for selecting preset channel (20)
    • 10 keys for adjusting sound (24, 28 – 31, 33)
    • 10 keys for operating audio/video components (45 – 49)
15. Remote control mode selector (10, 45, 48)
16. TEXT DISPLAY button (41)
17. CHANNEL +/– buttons (47 – 49)
18. VOLUME +/– buttons (11)
19. MUTING button (12)

Front Panel

1. STANDBY/ON ⏻/I button and STANDBY lamp (10)
2. Remote sensor (9)
3. SURROUND ON/OFF button and lamp (30, 31)
4. SEA MODE button (24)
5. INPUT ANALOG/DIGITAL button (16)
6. FM/AM TUNING button (19)*
7. FM MODE button (20)
8. Display (10)
9. Source lamps (10)
10. MASTER VOLUME control (11)
11. PHONES jack (12)
12. SPEAKERS 1/2 buttons and lamps (11)
13. RDS operation buttons (21 – 23)
    EON, TA/NEWS/INFO, PTY SEARCH, DISPLAY MODE
14. DSP MODE button (28)
15. BALANCE/SURROUND ADJUST button (12, 13, 28)*
16. SEA ADJUST button (24)*
17. SETTING button (13 – 17)*
18. TUNER/SEA MEMORY button (19, 20, 24)
19. SOUND SELECT/INPUT ATT. button (11, 12)
20. BASS BOOST/SOURCE NAME button (12, 13)
21. ONE TOUCH OPERATION button and lamp (18)
22. TUNER PRESET button (20)*
23. MULTI JOG control
    What this control actually does depends on which function you are trying to adjust. Before using this control, select the function by pressing one of the buttons marked with *.
24. SOURCE SELECTOR control (10)

Getting Started

This section explains how to connect audio/video components and speakers to the receiver, and how to connect the power supply.

Before Installation

General

- Be sure your hands are dry.
- Turn the power off to all components.
- Read the manuals supplied with the components you are going to connect.

Locations

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

Handling the receiver

- 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.

Checking the Supplied Accessories

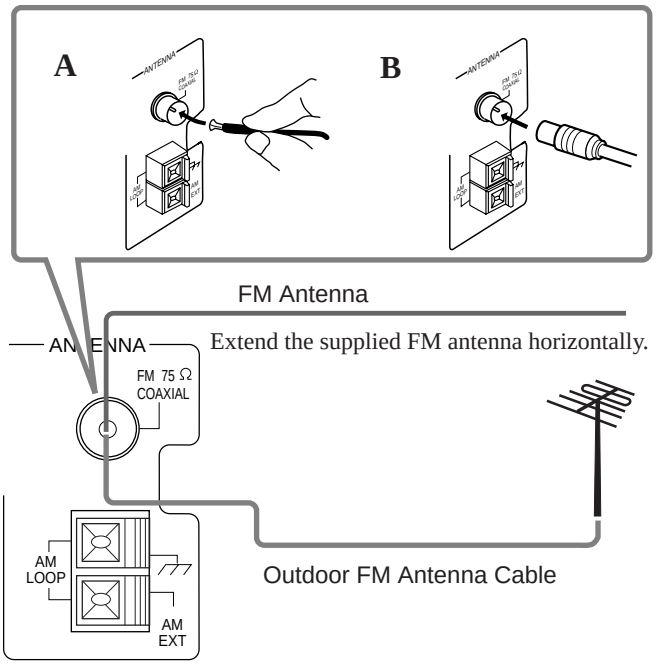
Check to be sure you have all of the following items, which are supplied with the receiver.
The number in the parentheses indicates quantity of the pieces supplied.

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

If anything is missing, contact your dealer immediately.

Connecting the FM and AM (MW/LW) Antennas

FM Antenna Connections



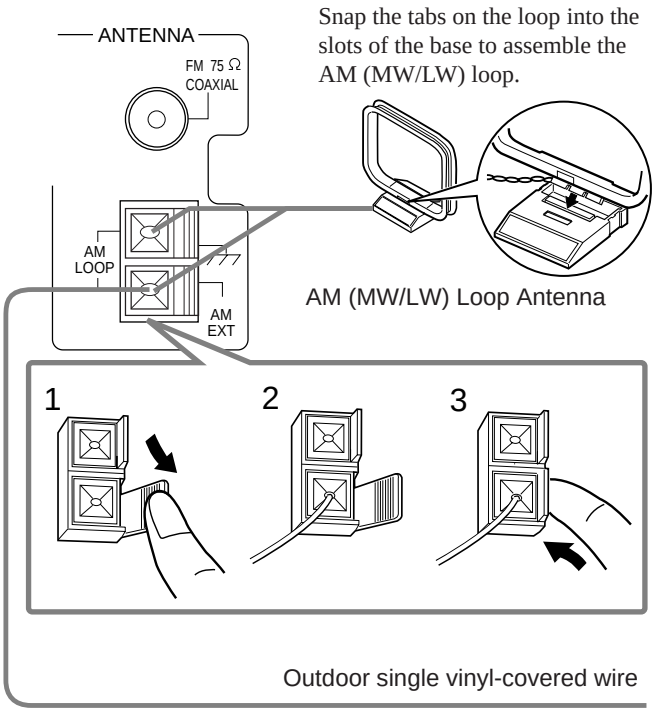
A. Using the Supplied FM Antenna
The FM antenna provided can be connected to the FM 75 Ω COAXIAL terminal as temporary measure.

B. Using the Standard Type Connector (Not Supplied)
A standard type connector (IEC or DIN45325) should be connected to the FM 75 Ω COAXIAL terminal.

Note:

If reception is poor, connect the outdoor antenna.
Before attaching a 75 Ω coaxial cable (the kind with a round wire going to an outdoor antenna), disconnect the supplied FM antenna.

AM (MW/LW) Antenna Connections



Turn the loop until you have the best reception.

Notes:

- *Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord. This could cause poor reception.*
- *If reception is poor, connect an outdoor single vinyl-covered wire to the AM EXT terminal. (Keep the AM (MW/LW) loop antenna connected.)*

Connecting the Speakers

You can connect the following speakers:

- Two pairs of front speakers to produce normal stereo sound.
- One pair of rear speakers to enjoy the surround effect.
- One center speaker to produce more effective surround effect (to emphasize human voices).
- One subwoofer to enhance the bass.

IMPORTANT:

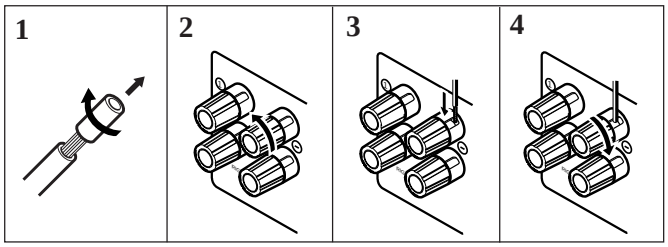
After connecting the speakers listed above, set the speaker setting information properly to obtain the best possible DSP effect. For details, see page 14.

For each speaker (except for a subwoofer), connect the (–) and (+) terminals on the rear panel to the (–) and (+) terminals marked on the speakers. For connecting a subwoofer, see page 5.

CAUTION:

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

Basic connecting procedure



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

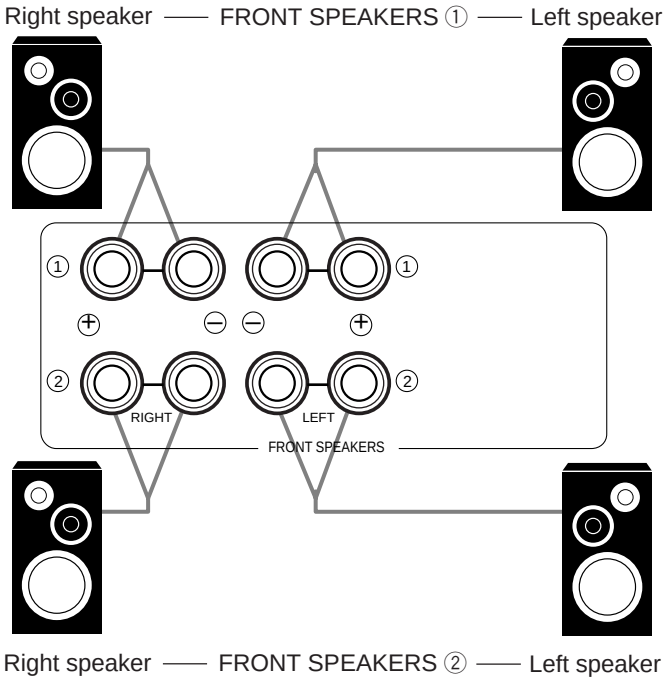
2 Turn the knob counterclockwise.

3 Insert the speaker signal cable.

4 Turn the knob clockwise.

Connecting the front speakers

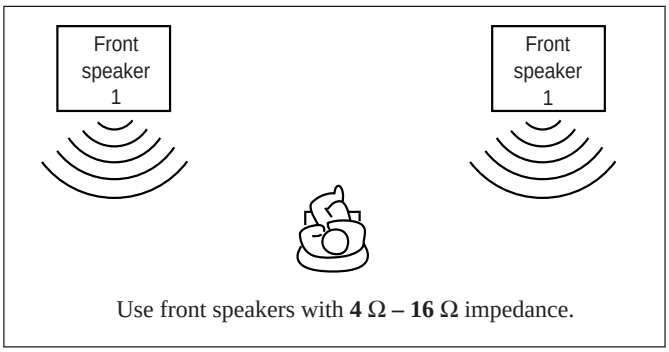
You can connect two pairs of front speakers (one pair to the FRONT SPEAKERS ① terminals, and another pair to the FRONT SPEAKERS ② terminals).



About the speaker impedance

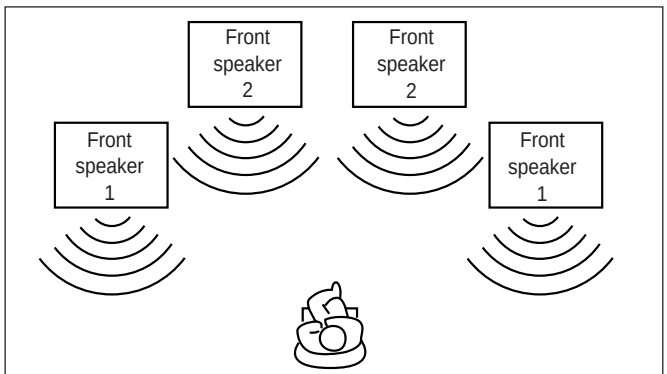
The required speaker impedance of the front speakers does differ depending on whether both the FRONT SPEAKERS ① and FRONT SPEAKERS ② terminals are used or only one of them is used.

CASE 1 **When you connect only one set of front speakers**



Use front speakers with **4 Ω – 16 Ω** impedance.

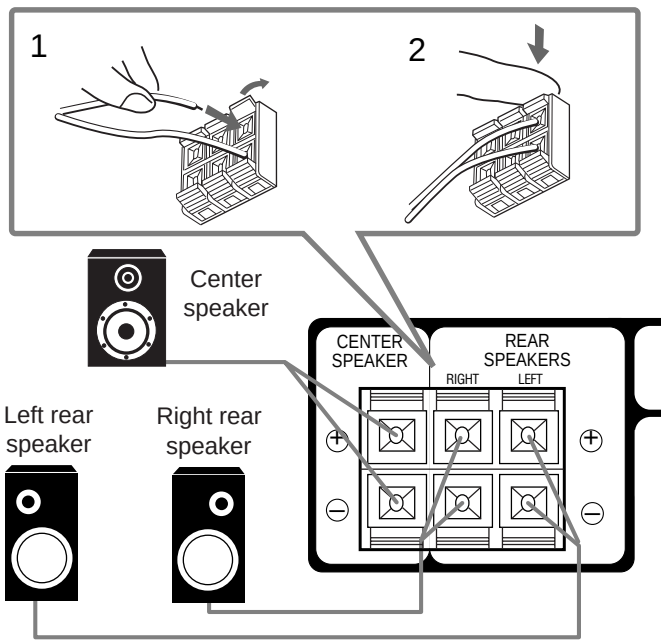
CASE 2 **When you connect two sets of front speakers**



Use front speakers **8 Ω – 16 Ω** impedance.

Connecting the rear and center speakers

Connect rear speakers to the REAR SPEAKERS terminals and a center speaker to the CENTER SPEAKER terminals.



Connecting the subwoofer speaker

You can enhance the bass by connecting a subwoofer.
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).

Powered subwoofer

Connecting Audio/Video Components

You can connect the following audio/video components to this receiver. Refer also to the manuals supplied with your components.

Audio Components	Video Components
• Turntable	• DVD player*
• CD player*	• TV*
• Cassette deck	• DBS tuner*
or MD recorder*	• VCR

* *You can connect these components using the methods described in "Analog connections" (below) or in "Digital connections" (see page 8).*

Analog connections

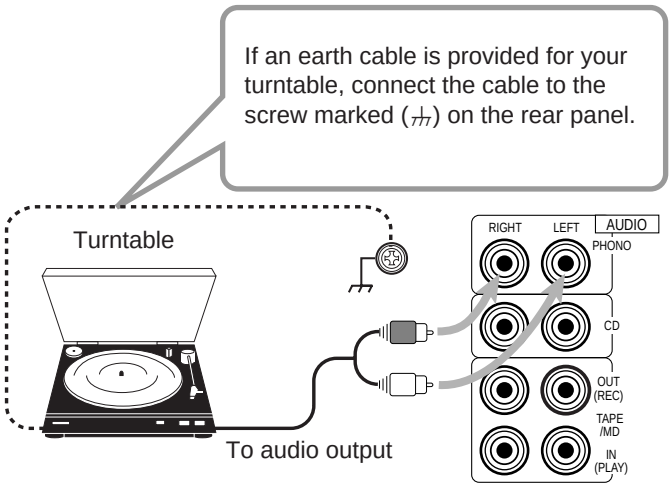
Audio component connections

Use the cables with RCA pin plugs (not supplied).
Connect the white plug to the audio left jack, and the red plug to the audio right jack.

CAUTION:

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.

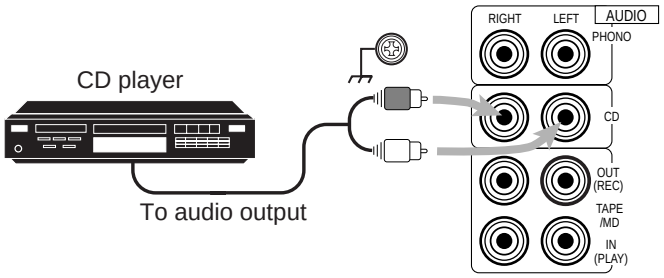
Turntable



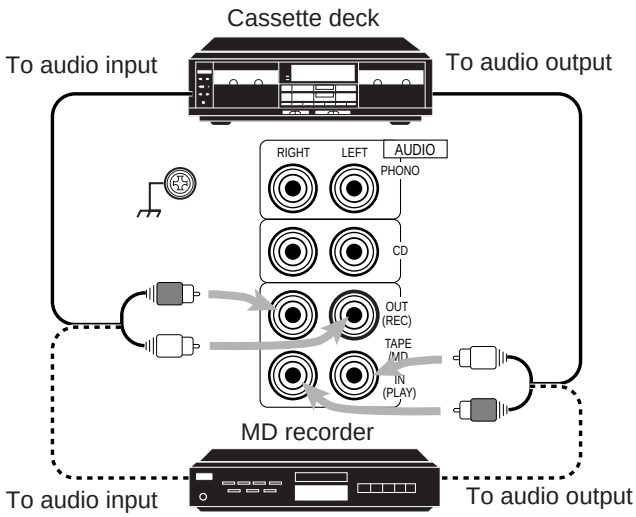
Note:

Any turntables incorporating a small-output cartridge such as an MC (moving-coil type) must be connected to this receiver through a commercial head amplifier or step-up transformer. Direct connection may result in insufficient volume.

CD player



Cassette deck or MD recorder



Note:

You can connect either a cassette deck or an MD recorder to the TAPE/MD jacks. When connecting an MD recorder to the TAPE/MD jacks, change the source name, which will be shown on the display when selected as the source, to "MD." See page 13 for details.

If your audio components have a COMPU LINK-3 or TEXT COMPU LINK jack

- See also page 39 for detailed information about the connection and the COMPU LINK-3 remote control system.
- See also page 40 for detailed information about the connection and the TEXT COMPU LINK remote control system.

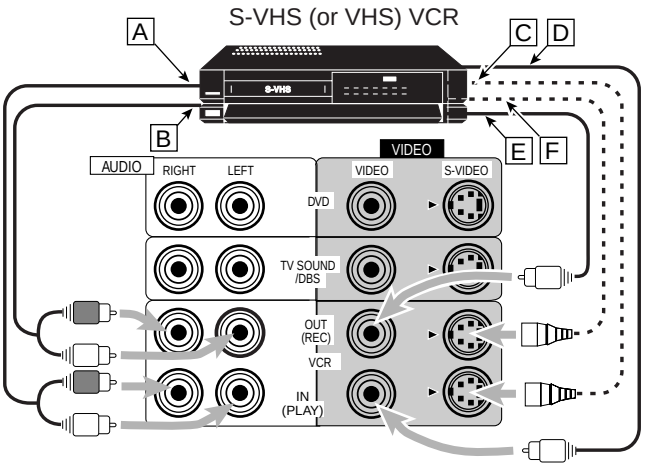
Video component connections

Use the cables with RCA pin plugs (not supplied).
Connect the white plug to the audio left jack, the red plug to the audio right jack, and the yellow plug to the video jack.
If your video components have S-video (Y/C-separation) terminals, connect them using S-video cables (not supplied). Connecting these video components through the S-video input/output terminals will give you better picture playback (or recording) quality.

IMPORTANT:

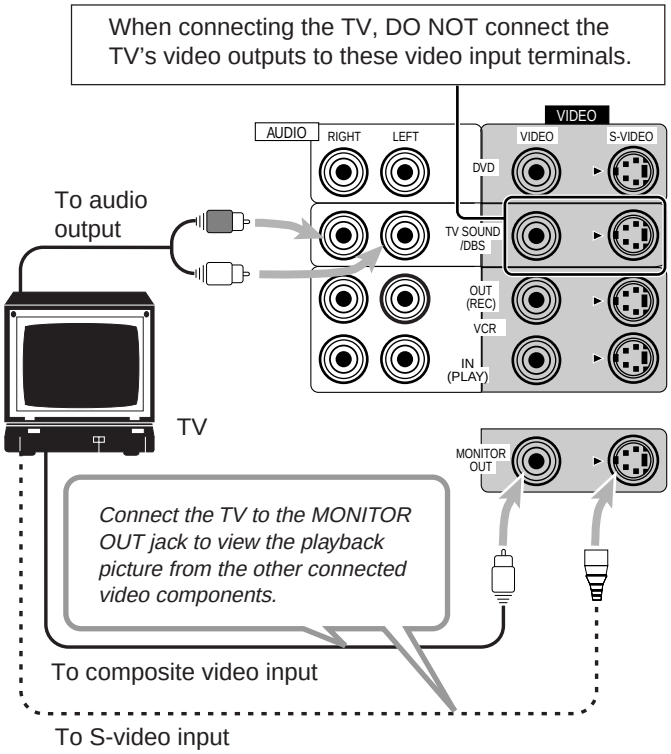
This receiver is equipped with both the composite video and S-video input/output terminals for connecting video components.
You do not have to connect both the composite video and S-video terminals.
However, **remember that the video signals from the composite video input terminals are output only through the composite video output terminals, while the ones from the S-video input terminals are output only through the S-video output terminals.**
Therefore, if a recording video component and a playing video component are connected to the receiver through the different video terminals, you cannot record the picture from the playing component on the recording component. In addition, if the TV and a playing video component are connected to the receiver through the different video terminals, you cannot view the playback picture from the playing component on the TV.

VCR



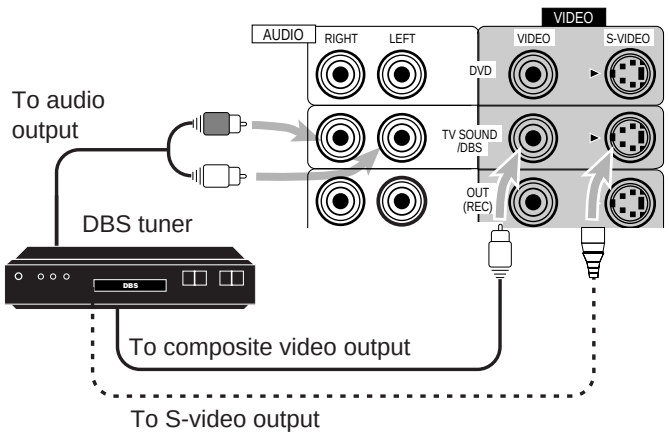
A To left/right channel audio output
B To left/right channel audio input
C To S-video output
D To composite video output
E To composite video input
F To S-video input

TV and/or DBS tuner



Note:

Use a TV of the PAL- or multi-color system.

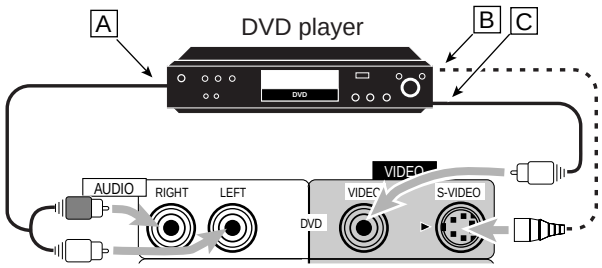


Note:

When connecting the DBS tuner to the TV SOUND/DBS jacks, change the source name, which will be shown on the display when selected as the source, to "DBS." See page 13 for details.

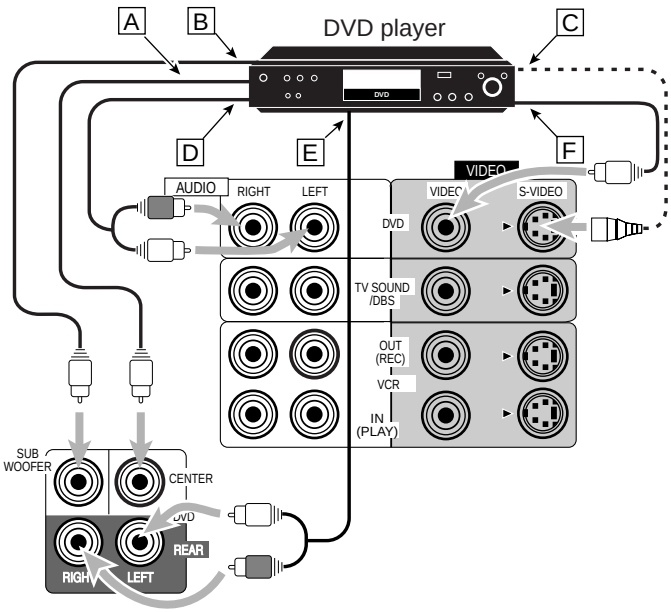
DVD player

• When you connect the DVD player with stereo output jacks:



A To front left/right channel audio output (or to audio mixed output if necessary)
B To S-video output
C To composite video output

• When you connect the DVD player with its analog discrete output (5.1 CH reproduction) jacks:



A To center channel audio output
B To subwoofer audio output
C To S-video output
D To front left/right channel audio output
E To rear left/right channel audio output
F To composite video output

Digital connections

This receiver is equipped with three DIGITAL IN terminals — one digital coaxial terminal and two digital optical terminals, and one DIGITAL OUT terminal.

You can connect any digital equipment such as —

- DBS tuner,
- Digital TV broadcast tuner,
- DVD player,
- CD player,
- and MD recorder.

IMPORTANT:

- When connecting the DVD player, digital TV broadcast tuner or DBS tuner using the digital terminals, you also need to connect it to the video jack (either composite video terminal or S-video terminal) on the rear. Without connecting it to the video jack, you can view no playback picture.
- After connecting the components using the DIGITAL IN terminals, set the following correctly if necessary.
  – Set the digital input (DIGITAL IN) terminal setting correctly. For details, see “Digital Input (DIGITAL IN) Terminal Setting” on page 16.
  – Select the digital input mode correctly. For details, see “Selecting the Analog or Digital Input Mode” on page 16.

Notes:

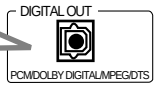
- *When shipped from the factory, the DIGITAL IN terminals have been set for use with the following components.*
  – *DIGITAL 1 (coaxial): For DVD player*
  – *DIGITAL 2 (optical): For CD player*
  – *DIGITAL 3 (optical): For digital TV broadcast tuner*
- *When you want to operate the CD player or MD recorder using the COMPU LINK remote control system, connect the target component also as described in “Analog connections” (see page 6).*
- *When you want to operate the DVD player using the AV COMPU LINK remote control system, connect the DVD player also as described in “Analog connections” (see page 7).*

Digital output terminal

MD recorder, etc.

Digital optical cable (not supplied) between digital optical terminals

When the digital recording equipment such as an MD recorder has a digital optical input terminal, connecting it to the DIGITAL OUT terminal enables you to perform digital-to-digital recording.

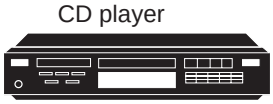


Digital input terminals

DBS tuner

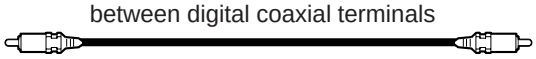
DVD player

CD player

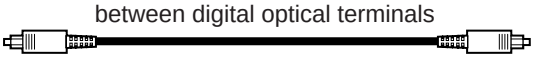


MD recorder

Digital coaxial cable (not supplied) between digital coaxial terminals



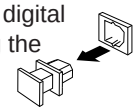
Digital optical cable (not supplied) between digital optical terminals



When the component has a digital coaxial output terminal, connect it to the DIGITAL 1 (DVD) terminal, using the digital coaxial cable (not supplied).

When the component has a digital optical output terminal, connect it to the DIGITAL 2 (CD), or DIGITAL 3 (TV) terminal, using the digital optical cable (not supplied).

Before connecting a digital optical cable, unplug the protective plug.



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.

Keep the power cord away from the connecting cables and the antenna. The power cord may cause noise or screen interference. We recommend that you use a coaxial cable to connect the antenna, since it is well-shielded against interference.

Note:

The preset settings such as preset channels and sound adjustment may be erased in a few days in the following cases:

– When you unplug the power cord.

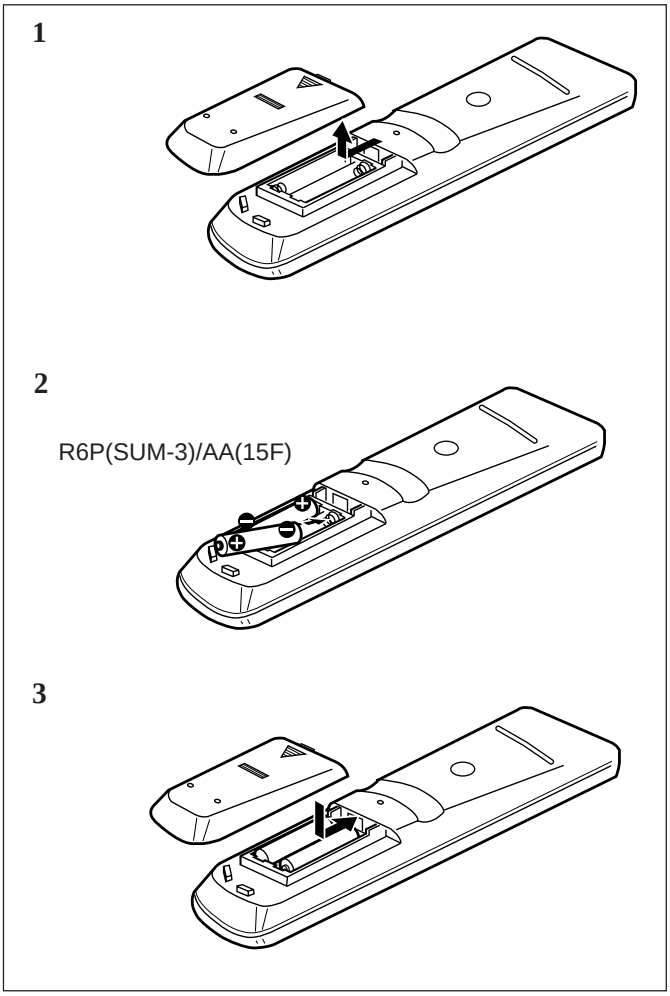
– When a power failure occurs.

CAUTIONS:

- 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.

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 (+).**

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:

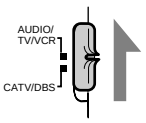
- Place batteries in the remote control so they match the polarity: (+) to (+).
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

Basic Operations

The following operations are commonly used when you play any sound source.

IMPORTANT:

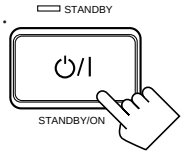
When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR."



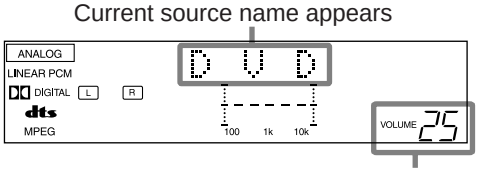
Turning the Power On and Off (Standby)

On the front panel:

To turn on the power, press STANDBY/ON ⏻/I.
The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.

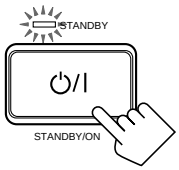


Current source name appears



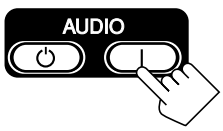
Current volume level is shown here

To turn off the power (into standby mode), press STANDBY/ON ⏻/I 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.



From the remote control:

To turn on the power, press AUDIO I.
The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.

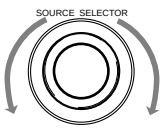


To turn off the power (into standby mode), press AUDIO ⏻.
The STANDBY lamp lights up.

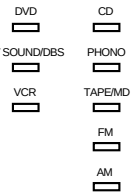
Selecting the Source to Play

On the front panel:

Turn SOURCE SELECTOR until the source name you want appears on the display.
- As you turn the selector, the source changes as follows:



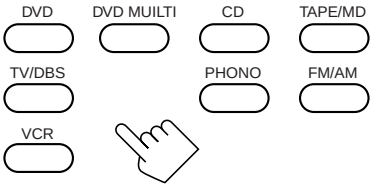
CD ⇄ PHONO ⇄ TAPE (or MD) ⇄ FM ⇄ AM ⇄ DVD ⇄ DVD MULTI ⇄ TV SOUND (or DBS) ⇄ VCR ⇄ (back to the beginning)



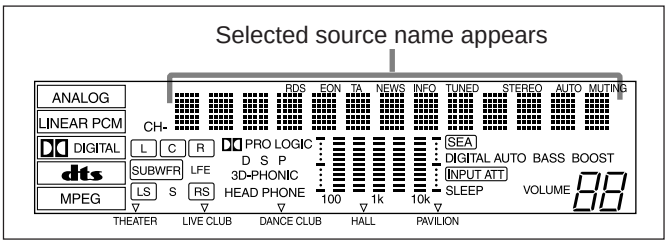
The selected source lamp also lights up.
- The DVD lamp lights up both for "DVD" and "DVD MULTI."

From the remote control:

Press one of the source selecting buttons.



Selected source name appears



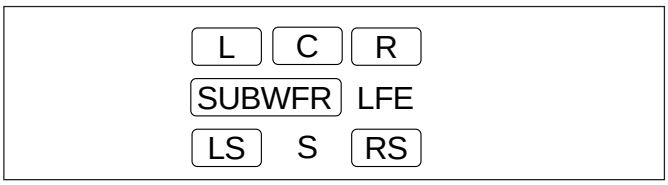
DVD	Select the DVD player.
DVD MULTI	Select the DVD player for viewing the digital video disc using the analog discrete output mode (5.1CH reproduction) on the DVD player. To enjoy the DVD MULTI playback, see page 33.
CD*	Select the CD player.
TAPE/MD*	Select the cassette deck (or the MD recorder).
TV/DBS	Select TV sounds (or the DBS tuner).
PHONO*	Select the turntable.
FM/AM*	Select an FM or AM (MW/LW) broadcast. • Each time you press the button, the band alternates between FM and AM (MW/LW).
VCR	Select the video component connected to the VCR jacks.

Notes:

- *When connecting an MD recorder (to the TAPE/MD jacks), and a DBS tuner (to the TV SOUND/DBS jacks), change the source name shown on the display. For details, see page 13.*
- *When you press one of the source selecting buttons on the remote control marked above with an asterisk (*), the receiver automatically turns on.*

Signal and speaker indicators on the display

- The signal indicators light up to indicate the incoming channel signals.
  – Only the indicators for the incoming signals light up.
- The frame of the signal indicator (except for "LFE" and "S") lights up if the corresponding speaker is set to "LARGE" or "SMALL" (for subwoofer, "YES").
  – The frames of "L" and "R" indicators always 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.

Notes:

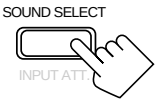
- *When "SUBWOOFER" is set to "YES," SUBWFR lights up.*
- *When you select "DVD MULTI," all the signal indicators except "S" light up.*

Selecting different sources for picture and sound

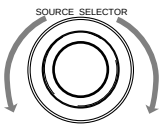
You can watch picture from a video component while listening to sound from another component.

On the front panel:

1. **Press SOUND SELECT (INPUT ATT.) briefly while viewing the picture from a video component such as the VCR or DVD player, etc.**
   "SOUND SELECT" appears on the display.



2. **Turn SOURCE SELECTOR to select the sound (except the TV sound), while the indication of the above step is still on the display.**



From the remote control:

Press one of the audio source selecting buttons (CD, TAPE/MD, PHONO, FM/AM, TV/DBS*), while viewing the picture from a video component such as the VCR or DVD player, etc.

Notes:

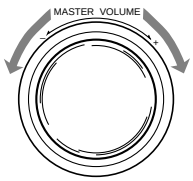
- *Once you have selected a video source, pictures of the selected source are sent to the TV until you select another video source.*

* *The TV/DBS button only works for selecting "DBS" as the source but not for selecting "TV SOUND." When you use the DBS tuner, change the source name correctly (see page 13).*

Adjusting the Volume

On the front panel:

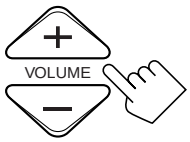
To increase the volume, turn MASTER VOLUME clockwise.
To decrease the volume, turn it counterclockwise.



- When you turn MASTER VOLUME rapidly, the volume level also changes rapidly.
- When you turn MASTER VOLUME slowly, the volume level also changes slowly.

From the remote control:

To increase the volume, press VOLUME +.
To decrease the volume, press VOLUME –.



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.

Note:

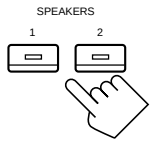
The volume level can be adjusted within the range of "0" (minimum) to "90" (maximum).

Selecting the Front Speakers

On the front panel ONLY:

When you have connected two pairs of the front speakers, you can select which to use.

Press SPEAKERS 1 or SPEAKERS 2 to select the speaker to use.



- Each time you press the button, the lamp on the respective button turns on and off. When the lamp on either button lights up, the respective speakers are activated.

Note:

If you use any of the DSP modes other than the 3D-PHONIC modes with both front speakers activated, the speakers connected to the FRONT SPEAKERS ② terminals are deactivated.

Listening only with headphones

You can listen with the headphones without deactivating both pairs of speakers; however, if you want to use the HEADPHONE mode (see below), you must turn off both pairs of speakers.

1. Connect a pair of headphones to the PHONES jack on the front panel.
2. Press SPEAKERS 1 and/or 2 so that no lamps on the buttons are turned on.
   This cancels the surround mode or DSP mode currently selected, and activates the HEADPHONE mode (see below).
   • The HEAD PHONE indicator lights up on the display.

HEADPHONE mode:
This mode can reproduce the LFE channel signals, mixing them with the front channel signals. So you will not miss the subwoofer sounds even if you listen to a source using the headphones.

Notes:

- *While in the HEADPHONE mode, you cannot use any other DSP modes (see page 25.)*
- *Activating the speaker cancels the HEADPHONE mode and turns on the DSP mode previously selected.*

CAUTION:

Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.

Muting the Sound

From the remote control ONLY:

Press MUTING to mute the sound through all speakers and headphones 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 "OFF" appears on the display.

- Turning MASTER VOLUME on the front panel or pressing VOLUME +/– on the remote control also restores the sound.

Reinforcing the Bass

You can boost the bass level.

On the front panel ONLY:

Press BASS BOOST (SOURCE NAME) briefly to select the bass boost function.

- Each time you press the button, the bass boost function turns on ("BASSBOOST ON") and off ("BASSBOOST OFF").
  – Select "BASSBOOST ON" to activate the bass boost function. The BASS BOOST indicator lights up on the display.
  – Select "BASSBOOST OFF" to cancel it. The indicator goes off.

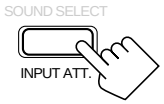
Note:

This function affects the front speaker sounds only.

Attenuating the Input Signal

When the input level of the playing 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.

On the front panel ONLY:



Press and hold INPUT ATT. (SOUND SELECT) so that the ATT indicator lights up on the display.

- Each time you press and hold the button, the Input Attenuator mode turns on ("INPUT ATT ON") or off ("INPUT NORMAL").

Notes:

- *This function is available only for the sources connected using the analog terminals.*
- *This function takes effect when the DSP mode is in use.*
- *When selecting "DVD MULTI" as the source, this effect does not work.*

Adjusting the Subwoofer Output Level

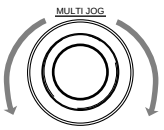
You can adjust the subwoofer output level if you have selected "YES" for the "SUBWOOFER" (see page 13).
Once it has been adjusted, the receiver memorizes the adjustment.

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.
- When the front speakers are all deactivated, the subwoofer level cannot be adjusted.

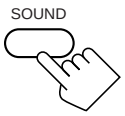
On the front panel:

1. **Press (BALANCE/) SURROUND ADJUST repeatedly until "SUBWFR LEVEL" appears on the display.**
   The display changes to show the current setting.

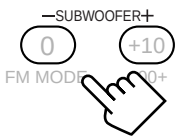


2. **Turn MULTI JOG to adjust the subwoofer output level (–10 dB to +10 dB).**

From the remote control:



1. **Press SOUND.**
   The 10 keys are activated for sound adjustments.



2. **Press SUBWOOFER –/+ to adjust the subwoofer output level (–10 dB to +10 dB).**

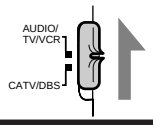
English

Basic Settings

Some of the following settings are required after connecting and positioning your speakers in your listening room, while others will make operations easier.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR"



Recording a Source

For analog-to-analog recording
You can record any analog source through the receiver to —
- the cassette deck (or MD recorder) connected to the TAPE/MD jacks,
- and the VCR connected to the VCR jacks

— at the same time.

For digital-to-digital recording
You can record the currently selected digital input through the receiver to a digital recording device connected to the DIGITAL OUT terminal.

Notes:

- *Analog-to-digital and digital-to-analog recordings are not possible.*
- *The output volume level, bass boost (see page 12), SEA modes (see page 24), and DSP modes (see page 25) cannot affect the recording.*
- *The test tone signal (see pages 29 and 30) does not come out through the DIGITAL OUT terminal.*

Adjusting the Front Speaker Output Balance

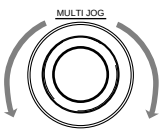
If the sounds you hear from the front right and left speakers are unequal, you can adjust the speaker output balance.

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.

On the front panel ONLY:

1. **Press BALANCE (/SURROUND) ADJUST repeatedly until "L/R BALANCE" appears on the display.**
   The display changes to show the current setting.

2. **Turn MULTI JOG to adjust the balance.**
   - Turning it clockwise decreases the left channel output.
   - Turning it counterclockwise decreases the right channel output.



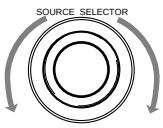
Changing the Source Name

When you have connected an MD recorder to the TAPE/MD jacks or the DBS tuner to the TV SOUND/DBS jacks on the rear panel, change the source name which will be shown on the display when you select the MD recorder or DBS tuner as the source.

On the front panel ONLY:

1. ***When changing the source name from "TAPE" to "MD":***
   - **Turn SOURCE SELECTOR until "TAPE" appears.**

   When changing the source name from "TV SOUND" to "DBS":
   - **Turn SOURCE SELECTOR until "TV SOUND" appears.**



2. **Press and hold SOURCE NAME (BASS BOOST) until "ASSGN. MD" or "ASSGN. DBS" appears on the display.**

To change the source name to "TAPE" or "TV SOUND," repeat the same procedure above — in step 1, select "MD" or "DBS" then press and hold SOURCE NAME (BASS BOOST).

Note:

Without changing the source name, you can still use the connected components. However, there may be some inconvenience.
- *– "TAPE" or "TV SOUND" will appear on the display when you select the MD recorder or DBS tuner.*
- *– You cannot use the digital input (see page 16) for the MD recorder.*
- *– You cannot use the COMPU LINK remote control system (see page 39) to operate the MD recorder.*

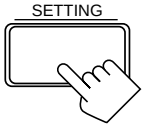
Setting the Subwoofer Information

Register whether or not you have connected a subwoofer.

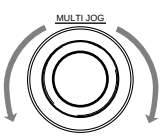
Before you start, remember...
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. **Press SETTING repeatedly until "SUBWOOFER" appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to register whether you have connected a subwoofer or not.**
   - As you turn it, the subwoofer setting alternates between "YES" and "NO."



YES:	Select this when a subwoofer is used. SUBWFR lights up on the display (see page 11).
NO:	Select this when no subwoofer is used.

Setting the Speakers for the DSP Modes

To obtain the best possible surround sound of the DSP modes, you have to register the information about the speakers arrangement after all connections are completed.

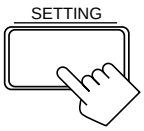
Before you start, remember...
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

Front, Center, and Rear Speaker Setting

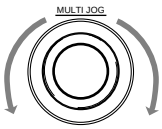
Register the sizes of all the connected speakers.
- When you change your speakers, you need to register the information about the speakers again.

On the front panel ONLY:

1. **Press SETTING repeatedly until "FRONT SPK" (Front Speaker), "CENTER SPK" (Center Speaker) or "REAR SPK" (Rear Speaker) appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select the appropriate item about the speaker selected in the above step.**
   - As you turn it, the display changes to show the following:



LARGE ⟷ SMALL ⟷ NONE

LARGE:	Select this when the speaker size is relatively large.
SMALL:	Select this when the speaker size is relatively small.
NONE:	Select this when you have not connected a speaker. (Not selectable for the front speakers)

3. **Repeat steps 1 and 2 to select the appropriate items for the other speakers.**

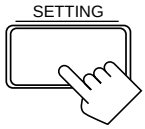
Notes:
- *Keep the following comment in mind as reference when adjusting.*
  - *If the size of the cone speaker unit built in your speaker is greater than 12 cm (4 3/4 inches), select "LARGE," and if it is smaller than 12 cm (4 3/4 inches), select "SMALL."*
- *If you have selected "NO" for the subwoofer setting, you can only select "LARGE" for the front speaker setting.*
- *If you have selected "SMALL" for the front speaker setting, you cannot select "LARGE" for the center and rear speaker settings.*

Center Delay Time Setting

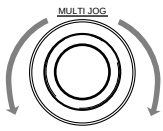
Register the delay time of the sound from the center speaker, comparing to that of the sound from the front speakers.
If the distance from your listening point to the center speaker is equal to that to the front speakers, select 0 msec. As the distance to the center speaker becomes shorter, increase the delay time.
- 1 msec increase (or decrease) in delay time corresponds to 30 cm (11 13/16 inches) decrease (or increase) in distance.
- When shipped from the factory, delay time is set to 0 msec.

On the front panel ONLY:

1. **Press SETTING repeatedly until "CENTER DELAY" appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select the delay time of the center speaker output.**
   - Turn it clockwise to increase the delay time from 0 msec ("C. DELAY: 0ms") to 5 msec ("C. DELAY: 5ms").
   - Turn it counterclockwise to decrease the delay time from 5 msec ("C. DELAY: 5ms") to 0 msec ("C. DELAY: 0ms").



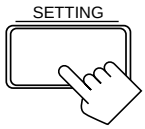
Notes:
- *Center delay time setting is not valid for the DVD MULTI playback mode.*
- *You cannot adjust the center delay time when you have set "CENTER SPK" to "NONE".*

Rear Delay Time Setting

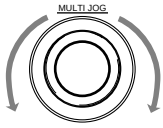
Register the delay time of the sound from the rear speakers, comparing to that of the sound from the front speakers.
If the distance from your listening point to the rear speakers is equal to that to the front speakers, select 0 msec. As the distance to the rear speakers becomes shorter, increase the delay time.
- 1 msec increase (or decrease) in delay time corresponds to 30 cm (11 13/16 inches) decrease (or increase) in distance.
- Rear delay time for Dolby Digital, DTS Digital Surround, and MPEG Multichannel is to be set to 5 msec.
- When shipped from the factory, delay time is set to 5 msec.

On the front panel ONLY:

1. **Press SETTING repeatedly until "REAR DELAY" appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select the delay time of the rear speaker output.**
   - Turn it clockwise to increase the delay time from 0 msec ("R. DELAY: 0ms") to 15 msec ("R. DELAY: 15ms").
   - Turn it counterclockwise to decrease the delay time from 15 msec ("R. DELAY: 15ms") to 0 msec ("R. DELAY: 0ms").



Notes:
- *Rear delay time setting is not valid for the DVD MULTI playback mode.*
- *You cannot adjust the rear delay time when you have set "REAR SPK" to "NONE".*

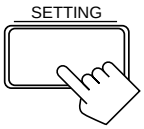
Crossover Frequency Setting

Small speakers cannot reproduce the bass sound very well. So, if you have used a small speaker for any of the front, center, or rear channels, this receiver automatically reallocates the bass elements, originally assigned to the channel for which you have connected the small speaker, to another channel (for which you have connected the large speaker).
To use this function properly, you need to set the crossover frequency level according to the size of the small speaker connected.

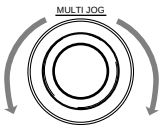
- If you have selected "LARGE" for all speakers (see page 14), this function is set to "OFF" and can not be adjusted.

On the front panel ONLY:

1. **Press SETTING repeatedly until "CROSSOVER FRQ" (Crossover Frequency) appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select the crossover frequency level according to the size of the small speaker connected.**
   - As you turn it, the display changes to show the following:



80Hz ⟷ 100Hz ⟷ 120Hz

   - Use the following comments as reference when adjusting.

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

Note:

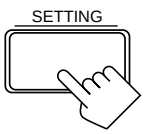
Crossover frequency setting is not valid for the DVD MULTI playback mode, 3D-PHONIC mode and HEADPHONE mode.

Low Frequency Effect Attenuator Setting

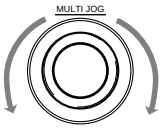
If the bass sound is distorted while playing back a source using Dolby Digital, DTS Digital Surround, or MPEG Multichannel, follow the procedure below.

On the front panel ONLY:

1. **Press SETTING repeatedly until "LFE ATT" (Low Frequency Effect Attenuator) appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select the low frequency effect attenuator level.**
   - As you turn it, the display changes to show the following:



0dB ⟷ 10dB

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

Note:

Low frequency effect attenuator setting is not valid for the DVD MULTI playback mode.

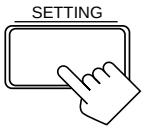
Dynamic Range Compression Setting

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.

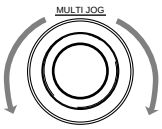
- This function takes effect only when playing back a source using Dolby Digital.

On the front panel ONLY:

1. **Press SETTING repeatedly until "D. RANGE COMP." (Dynamic Range Compression) appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select the appropriate item about the compression level.**
   - As you turn it, the display changes to show the following:



OFF ⟷ MID ⟷ MAX

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. (Factory setting)
MAX:	Select this when you want to apply the compression effect fully. (Useful at night)

Note:

Dynamic Range Compression setting is not valid for the DTS Digital Surround, MPEG Multichannel and DVD MULTI playback mode.

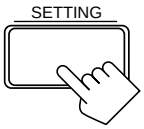
Digital Input (DIGITAL IN) Terminal Setting

When you use the digital input terminals, you have to register what components are connected to which terminals (DIGITAL IN 1/2/3).

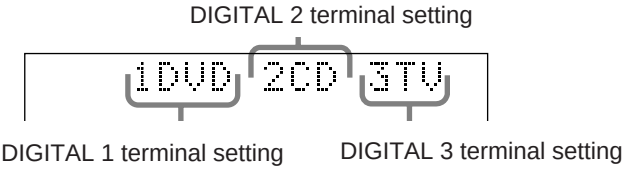
Before you start, remember...
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

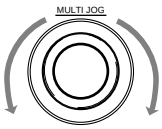
1. Press SETTING repeatedly until "DIGITAL IN" appears on the display.



The display changes to show the current setting.



2. Turn MULTI JOG to select the appropriate digital terminal setting.



- As you turn it, the display changes to show the following:

1 DVD 2 CD 3 TV (or DBS*) ⇄
1 DVD 2 CD 3 MD ⇄
1 DVD 2 MD 3 TV (or DBS*) ⇄
1 CD 2 DVD 3 TV (or DBS*) ⇄
1 CD 2 DVD 3 MD ⇄
1 CD 2 MD 3 TV (or DBS*) ⇄
1 TV (or DBS*) 2 CD 3 DVD ⇄
1 TV (or DBS*) 2 CD 3 MD ⇄
1 TV (or DBS*) 2 DVD 3 MD ⇄
1 MD 2 CD 3 TV (or DBS*) ⇄
1 MD 2 CD 3 DVD ⇄
1 MD 2 DVD 3 TV (or DBS*) ⇄
(back to the beginning)

* *If you have changed the source name from "TV SOUND" to "DBS," "DBS" appears.*

Note:

When shipped from the factory, the DIGITAL IN terminals can be used as the digital input for the following components.
- *DIGITAL 1 (coaxial): For DVD player*
- *DIGITAL 2 (optical): For CD player*
- *DIGITAL 3 (optical): For digital TV broadcast tuner*

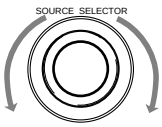
Selecting the Analog or Digital Input Mode

When you have connected some digital source components using the digital terminals (see page 8), you need to change the input mode for these components to the appropriate digital input mode correctly — AUTO/PCM, DOLBY DIGITAL, DTS or MPEG.

Before you start, remember...
- **The digital input (DIGITAL IN) terminal setting should be correctly done for the sources you want to select the digital input mode for.** Without setting this digital input terminal correctly, you cannot change the input mode from analog input to digital input even if you follow the procedure below.

On the front panel:

1. Turn SOURCE SELECTOR until the source (CD, MD, TV SOUND, DBS, or DVD)* for which you want to change the input mode appears on the display.

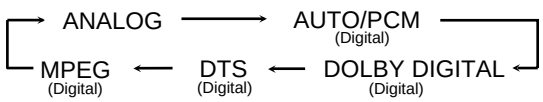


Note:

* *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 "Digital Input (DIGITAL IN) Terminal Setting.")*

2. Press INPUT ANALOG/DIGITAL repeatedly until the digital input mode you want appears on the display.

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



Normally select "AUTO/PCM," so the receiver automatically detects the incoming digital signal format. (The DIGITAL AUTO indicator lights up on the display.)

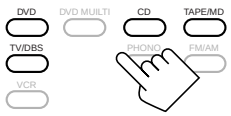
– **When the receiver can recognize the digital signal format coming into the receiver,** the frame of the digital signal indicator for the detected signal lights up automatically.

– **When the receiver cannot recognize the incoming signal format correctly,** the frame of the digital signal indicator flashes.
If this happens, select the same digital input mode with the incoming digital signal — "DOLBY DIGITAL", "DTS" or "MPEG."

To change the input mode back to analog input, select "ANALOG."

From the remote control:

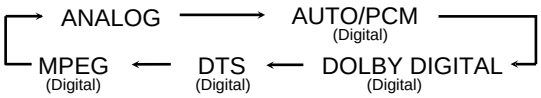
1. **Press the source selecting button (CD, TAPE/MD, TV/DBS, or DVD)* for which you want to change the input mode.**



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 "Digital Input (DIGITAL IN) Terminal Setting.")*

2. **Press ANALOG/DIGITAL to change the input mode.**
   - Each time you press the button, the input mode changes as follows:



Notes:

- *Noise may come out of the speakers while searching or skipping a multi-sound source encoded with Dolby Digital, DTS Digital Surround or MPEG Multichannel. If this happens, select "DOLBY DIGITAL", "DTS" or "MPEG" for digital input mode.*
- *When you change the source, the digital input mode will be automatically reset to "AUTO/PCM."*

Showing the Text Information on the Display

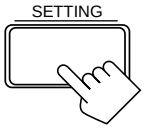
When you have connected an MD recorder or CD player equipped with TEXT COMPU LINK remote control system (see page 40), you can show the text information, such as disc title or track title, on the display of this receiver. To show it on the display, follow the procedure below.

Before you start, remember...

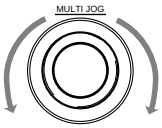
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. **Press SETTING repeatedly until "FL DISPLAY" appears on the display.**
   The display changes to show the current setting.



2. **Turn MULTI JOG to select either the source name or the text information to be shown on the display.**
   - As you turn it, the display changes to show the following:



NORMAL ⟷ TEXT

NORMAL:	Source name appears during play.
TEXT:	Text information appears during play.

Note:

Though you have selected "TEXT," the source name such as "CD" or "MD" appears if a playing disc has no text information.

Storing the Basic Settings and Adjustments — One Touch Operation

JVC's One Touch Operation function is used to assign and store different sound settings for each different playing source. By using this function, you do not have to change the settings every time you change the source. The stored settings for the newly selected source are automatically recalled.
The following can be stored for each source:

- Volume level (see page 11)
- Bass boost (see page 12)
- Input attenuator mode (see page 12)
- Subwoofer output level (see page 12)
- Balance (see page 13)
- SEA modes (see page 24)
- DSP modes
  - 3D-PHONIC mode settings (see page 28)
  - DAP mode settings (see page 28)
  - Surround mode settings (see page 29)
- DVD MULTI playback mode settings (see page 33)

On the front panel ONLY:

To store the sound settings

1. Press ONE TOUCH OPERATION.

The ONE TOUCH OPERATION lamp lights up, then the previously memorized settings are recalled.

2. Adjust the sound using the functions listed above.
The newly adjusted settings are memorized.

To recall the sound settings
With the ONE TOUCH OPERATION lamp lit, the settings for the currently selected source are recalled when the source is selected.

To cancel the One Touch Operation function
Press ONE TOUCH OPERATION so that the lamp goes off.
(Even though the One Touch Operation function is canceled, the recalled sound effects remain active.)

Notes:

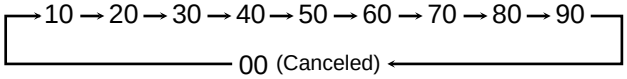
- *If the source is FM or AM (MW/LW), you can assign a different setting for each band.*
- *The DSP modes and DVD MULTI playback mode cannot be used at the same time.*

Using the Sleep Timer

Using the Sleep Timer, you can fall asleep to music and know the receiver will turn off by itself rather than play all night.

From the remote control ONLY:

Press SLEEP repeatedly.
The SLEEP indicator lights up on the display, and the shut-off time changes as follows (in minutes):



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 until the shut-off time appears in minutes.

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

To cancel the Sleep Timer
Press SLEEP repeatedly until "SLEEP 00min." appears on the display. (The SLEEP indicator goes off.)

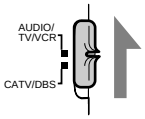
- Turning off the power also cancels the Sleep Timer.

Receiving Radio Broadcasts

You can browse through all the stations or use the preset function to go immediately to a particular station.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR".

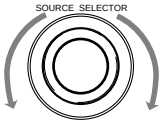


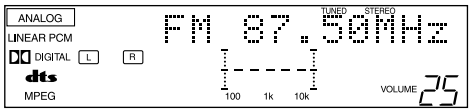
Tuning in Stations Manually

On the front panel ONLY:

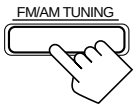
1. Turn SOURCE SELECTOR to select the band (FM or AM — MW/LW).

The last received station of the selected band is tuned in.



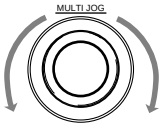


2. Press FM/AM TUNING.



3. Turn MULTI JOG until you find the frequency you want.

- Turning it clockwise increases the frequency.
- Turning it counterclockwise decreases the frequency.
- When you turn MULTI JOG quickly, the frequency keeps changing until a station is tuned in.



Note:

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 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 (MW/LW) stations.

To store the preset stations

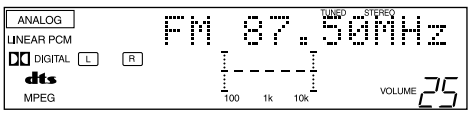
Before you start, remember...

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

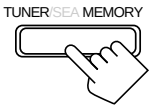
On the front panel ONLY:

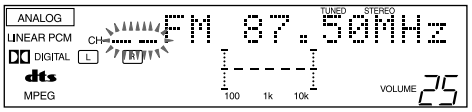
1. Tune in the station you want to preset (see "Tuning in Stations Manually").

- 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 20.



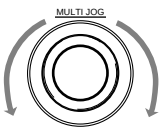
2. Press TUNER (/SEA) MEMORY.





"CH-" appears and the channel number position starts flashing on the display for about 10 seconds.

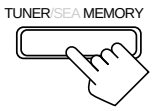
3. Turn MULTI JOG to select a channel number while the channel number position is flashing.



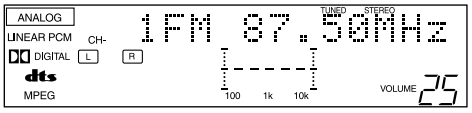
Note:

You can use the 10 keys on the remote control to select the preset number. When using the 10 keys, be sure that they are activated for the tuner, not for the CD and others. (See page 45.)

4. Press TUNER (/SEA) 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.

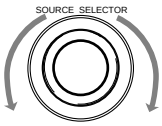
To erase a stored preset station

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

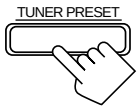
To tune in a preset station

On the front panel:

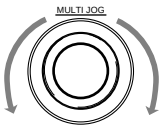
1. **Turn SOURCE SELECTOR to select the band (FM or AM — MW/LW).**
   The last received station of the selected band is tuned in.



2. **Press TUNER PRESET.**



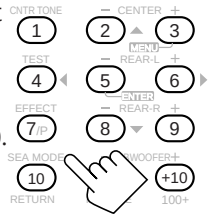
3. **Turn MULTI JOG until you find the channel you want.**
   - Turning it clockwise increases the channel numbers.
   - Turning it counterclockwise decreases the channel numbers.



From the remote control:

1. **Press FM/AM.**
   - Each time you press the button, the band alternates between FM and AM (MW/LW).

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 20, press +10 then 10.
   - For channel number 30, press +10, +10, then 10.



Note:

When you use the 10 keys on the remote control, be sure that they are activated for the tuner, not for the CD and others. (See page 45.)

Selecting the FM Reception Mode

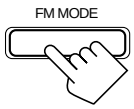
When an FM stereo broadcast is hard to receive or noisy

You can change the FM reception mode while receiving an FM broadcast.

- You can store the FM reception mode for each preset station.

Press FM MODE on the front panel or on the remote control.

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



On the front panel

On the remote control

AUTO MUTING: 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.

MONO: Reception will be improved although you will lose the stereo effect. In this mode, you will hear noise while tuning into the stations. The AUTO MUTING indicator goes off on the display.

Note:

When using the FM MODE button on the remote control, be sure that the 10 keys are activated for the tuner, not for the CD and others. (See page 45.)

Assigning Names to Preset Stations

You can assign a name of up to four characters to each preset station. When a preset station is tuned in, its assigned name will appear on the display.

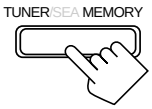
Before you start, remember...

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- You can use the following characters: Space (_), A – Z, and 0 – 9.

On the front panel ONLY:

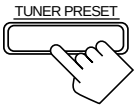
1. **Tune in a preset station.**
   See the left.

2. **Press TUNER (/SEA) MEMORY.**
   The preset channel number starts flashing for about 10 seconds.

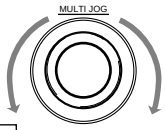


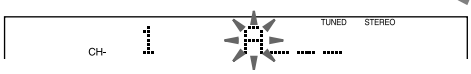
   - If you turn MULTI JOG while the preset channel number is flashing, you can change the preset channel number.

3. **Press TUNER PRESET, while the preset channel number is flashing.**
   The first character position starts flashing.

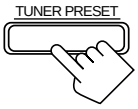


4. **Turn MULTI JOG to select the first character, while the first character position is flashing.**





5. **Press TUNER PRESET, while a character you want is flashing.**
   The next character position starts flashing.



6. **Repeat steps 4 and 5 to enter up to four characters.**

7. **Press TUNER (/SEA) MEMORY while the last selected character is flashing after you have assigned a name.**

To erase the input characters

Insert spaces using the same procedure described above.

Using the RDS (Radio Data System) to Receive FM Stations

RDS allows FM stations to send an additional signal along with their regular program signals. For example, the stations send their station names, as well as information about what type of program they broadcast, such as sports or music, etc.

When tuned to an FM station which provides the RDS service, the RDS indicator lights up on the display.

With the receiver, you can receive the following types of RDS signals.

PS (Program Service):	Shows commonly known station names
PTY (Program Type):	Shows types of broadcast programs
RT (Radio Text):	Shows text messages the station sends
EON (Enhanced Other Network):	See page 23.

Notes:

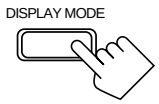
- *RDS is not available for AM (MW/LW) broadcasts.*
- *RDS may not operate correctly if the station tuned is not transmitting RDS signal properly or if the signal strength is weak.*

What information can RDS signals provide?

You can see the RDS signals the station sends on the display.

To show the RDS signals

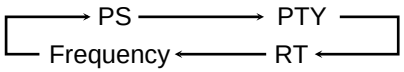
Press DISPLAY MODE while listening to an FM station.



On the front panel

On the remote

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



PS (Program Service):
While searching, “PS” appears and then the station names will be displayed. “NO PS” appears if no signal is sent.
PTY (Program Type):
While searching, “PTY” appears and then the type of the broadcast program will be displayed. “NO PTY” appears if no signal is sent.
RT (Radio Text):
While searching, “RT” appears and then text messages the station sends will be displayed. “NO RT” appears if no signal is sent.
Frequency:
Station frequency (non-RDS service)

Notes:

- *When pressing DISPLAY MODE on the remote control, make sure that you have selected FM station using the remote control. If not, the DISPLAY MODE button does not work for tuner operation. (Pressing FM/AM activates the remote control for tuner operation.)*
- *If searching finishes at once, “PS,” “PTY,” and “RT” will not appear on the display.*

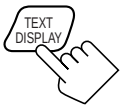
You can also show the RDS information on the TV screen.

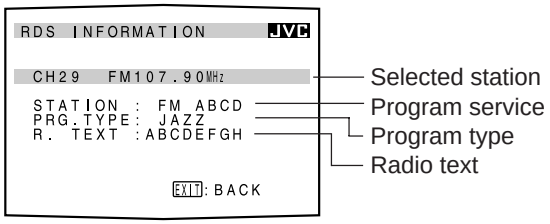
To use this function, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 7), and set the TV’s input mode to the proper position to which the receiver is connected.

- When the TV’s input mode is incorrect; for example, a different video input or TV tuner mode is selected, you cannot show the RDS information on the TV screen.

Press TEXT DISPLAY while listening to an FM station.

The following information appears on the TV screen.





To erase the RDS information, press EXIT.

Note:

The on-screen display will disappear in the following case:

– if no operation is done for about 10 minutes.

– if you do any operation other than explained in this section.

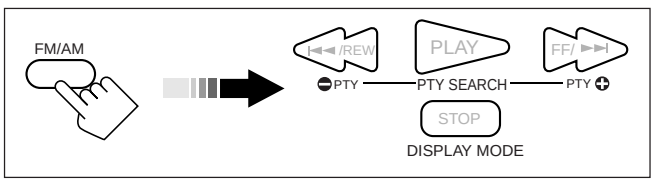
Searching for a Program by PTY Codes

One of the advantages of the RDS service is that you can locate a particular kind of program from the preset channels (see page 19) by specifying the PTY codes.

To search for a program using the PTY codes

Before you start, remember...

- The PTY Search is only applicable to preset stations.
- To stop searching any time during the process, press PTY SEARCH while searching.
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- When pressing the buttons on the remote control, make sure that you have selected the FM station using the remote control. If not, the RDS operation buttons do not work for RDS operation. (Pressing FM/AM activates the remote control for RDS operation.)

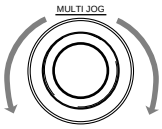


On the front panel:

1. Press PTY SEARCH while listening to an FM station.

“PTY SELECT” flashes on the display.

2. **Turn MULTI JOG until the PTY code you want appears on the display, while “PTY SELECT” is flashing.**



The display gives you the PTY codes described to the right.

3. **Press PTY SEARCH again, while the PTY code selected in the previous step is still on the display.**

While searching, “SEARCH” and the selected PTY code alternate on the display.
The receiver searches 30 preset FM stations, stops when it finds the one you have selected, and tunes in that station.

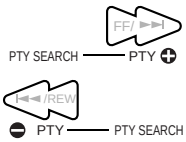
To continue searching after the first stop
Press PTY SEARCH again while the indications on the display are flashing.
If no program is found, “NOTFOUND” appears on the display.

From the remote control:

1. **Press PTY SEARCH while listening to an FM station.**

“PTY SELECT” flashes on the display.

2. **Press and hold PTY –/+ until the PTY code you want appears on the display, while “PTY SELECT” is flashing.**



The display gives you the PTY codes described to the right.

3. **Press PTY SEARCH again, while the PTY code selected in the previous step is still on the display.**

While searching, “SEARCH” and the selected PTY code alternate on the display.
The receiver searches 30 preset FM stations, stops when it finds the one you have selected, and tunes in that station.

To continue searching after the first stop
Press PTY SEARCH again while the indications on the display are flashing.
If no program is found, “NOTFOUND” appears on the display.

PTY codes

When an emergency broadcast (Alarm ! signal) is sent from an FM station:
The receiver automatically tunes in the station except in the following cases:

- When you are listening to non-RDS stations (all AM — MW/LW and some FM stations).
- When the receiver is in standby mode.

While receiving an emergency broadcast, “Alarm !” appears on the display.

The TEST signal is used for equipment test — whether it can receive the Alarm ! signal correctly.
The TEST signal makes the receiver work in the same way as the Alarm ! signal does. If the TEST signal is received, the receiver automatically switches to the station broadcasting the TEST signal. While receiving the test signal, “TEST” appears on the display.

Switching to a Broadcast Program of Your Choice Temporarily

Another convenient RDS service is called “EON (Enhanced Other Network).”
The EON indicator lights up while receiving a station with the EON code.
This allows the receiver to switch temporarily to a broadcast program of your choice (NEWS, TA, and/or INFO) from a different station except in the following cases:

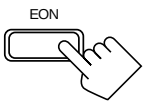
- When you are listening to non-RDS stations (all AM — MW/LW and some FM stations).
- When the last received FM station is a non-RDS station.
- When the receiver is in standby mode.

Before you start, remember...

- The EON function is only applicable to preset stations.

On the front panel ONLY:

1. Press EON so that the last selected program type appears on the display.



The receiver enters EON standby mode. When the receiver is in EON standby mode, the receiver is ready to receive the EON data (TA/NEWS/INFO) you select.

2. Press TA/NEWS/INFO until the program type you want appears on the display.

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

TA → NEWS/INFO → TA/INFO → TA/NEWS → TA/NEWS/INFO → INFO → NEWS → TA

TA:	Traffic Announcement in your area.
NEWS:	News.
INFO:	Program the purpose of which is to impart advice in the widest sense.

CASE 1 **If there is no station broadcasting the program you have selected**

The receiver continues playing the current source (all sources except AM — MW/LW).

⇩

When a station starts broadcasting the program you have selected, the receiver automatically switches to the station. The indicator of received PTY code starts flashing.

⇩

When the program is over, the receiver goes back to the previously selected source, but still remains in EON standby mode. The indicator of received PTY code stops flashing and remains lit.

CASE 2 **If there is a station broadcasting the program you have selected**

The receiver changes the source (all sources except AM — MW/LW), and tunes in the station. The indicator of received PTY code starts flashing.

⇩

When the program is over, the receiver goes back to the previously selected source, but still remains in EON standby mode. The indicator of received PTY code stops flashing and remains lit.

CASE 3 **If the FM station you are listening to is broadcasting the program you have selected**

The receiver continues to receive the station, but the indicator of received PTY code starts flashing.

⇩

When the program is over, the indicator of received PTY code stops flashing and remains lit, but the receiver remains in EON standby mode.

To stop listening to the program selected by EON

Press EON so that the program type (TA/NEWS/INFO) indicator goes off from the display. The receiver enters EON off mode and goes back to the previously selected source.

- Each time you press EON, the EON mode alternates between standby mode and off mode.

Notes:

- *EON data sent from some stations may not be compatible with this receiver.*
- *In EON standby mode, if you change the source to AM (MW/LW) or if you carry out synchronized recording (see page 39), EON standby mode is canceled temporarily. The receiver goes back to EON standby mode again when you have finished that operation.*
- *While listening to a program tuned in by the EON function, you cannot use source selecting buttons and PTY SEARCH button.*
- *While listening to a program tuned in by the EON function, you cannot perform the on-screen operations (pages 34 and 41).*

CAUTION:

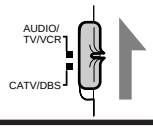
When the source alternates intermittently between the station tuned in by the EON function and the currently selected source, press EON to cancel the EON function.
If you do not press the button, the currently tuned station is received finally, and the indication of the EON program type flashing on the display disappears.

Using the SEA Modes

The SEA (Sound Effect Amplifier) modes give you control of the way your music sounds.

IMPORTANT:

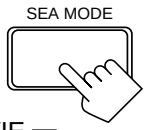
When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR".



Selecting Your Favorite SEA Mode

On the front panel:

Press SEA MODE repeatedly until the SEA mode you want appears on the display.



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

SEA ROCK → SEA MUSICAL → SEA MOVIE → SEA COUNTRY → SEA JAZZ → SEA USERMODE → SEA OFF

SEA ROCK:	Gives a heavy sound. Both high and low frequencies are boosted.
SEA MUSICAL:	Enhances the mid-frequency range, which the human voice is mostly made up of.
SEA MOVIE:	Adds breadth to sounds so you feel like you are in a movie theater.
SEA COUNTRY:	Enhances the high-frequency range so that instruments such the violin and banjo are emphasized.
SEA JAZZ:	Gives a feeling of a live atmosphere. Good for acoustic music.
SEA USERMODE:	Your original SEA adjustment (see the right).
SEA OFF:	No SEA mode is applied (see below).

Notes:

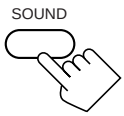
- *The SEA modes cannot be used for recording.*
- *When the SEA mode is turned on, the SEA indicator lights up on the display.*
- *When the SEA mode is used with the DAP mode (see page 28), sounds may be distorted. If this happens, turn off the DAP mode or decrease the effect level of the DAP mode.*

To cancel the SEA mode

Press SEA MODE repeatedly until "SEA OFF" appears. The SEA indicator goes off from the display.

From the remote control:

1. **Press SOUND.**
   The 10 keys are activated for sound adjustments.



2. **Press SEA MODE repeatedly until the SEA mode you want appears on the display.**

To cancel the SEA mode

Press SEA MODE repeatedly until "SEA OFF" appears in step 2 above. The SEA indicator goes off from the display.

Creating Your Own SEA Mode

You can adjust and store your own SEA adjustment into memory (SEA USERMODE).

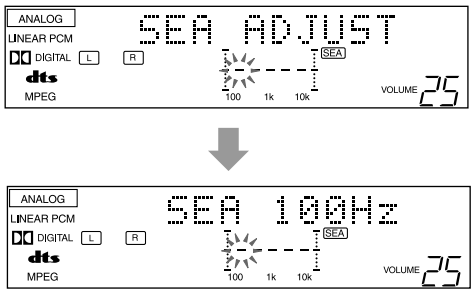
Before you start, remember...

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

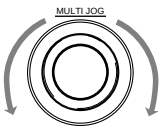
On the front panel ONLY:

If you do not want to store your adjustment, but rather want to adjust the SEA temporarily, skip step 4 below.

1. **Press SEA ADJUST repeatedly until the frequency range (100 Hz, 1 kHz or 10 kHz) you want appears on the display.**

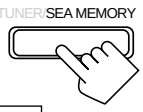


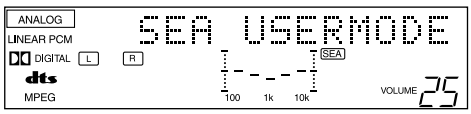
2. **Turn MULTI JOG to adjust the SEA level of the selected frequency range.**
   - Turning it clockwise increases the level.
   - Turning it counterclockwise decreases the level.



3. **Repeat steps 1 and 2 to adjust other frequency ranges if necessary.**

4. **Press (TUNER/) SEA MEMORY.**
   Your adjustment is stored into the SEA USERMODE.





To recall your own SEA adjustment

Press SEA MODE repeatedly until "SEA USERMODE" appears.

To erase a stored adjustment

Storing a new adjustment into SEA USERMODE erases the previously stored one.

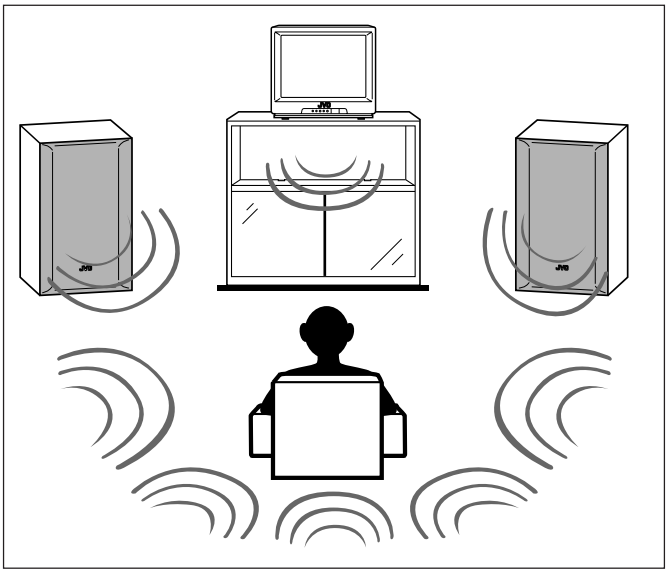
Using the DSP Modes

The built-in Surround Processor provides three types of the DSP (Digital Signal Processor) mode — 3D-PHONIC mode, DAP (Digital Acoustic Processor) mode and Surround mode.

3D-PHONIC modes

The 3D-PHONIC mode gives you such a nearly surround effect as is reproduced through the Dolby Surround decoder, which is widely used to reproduce sounds with a feeling of movement like those experienced in movie theaters. The 3D-PHONIC mode is the result of research on sound localization technology carried out at JVC for many years. **This mode can be used when the front speakers are connected to this receiver (without respect to the rear/center speaker connection).**

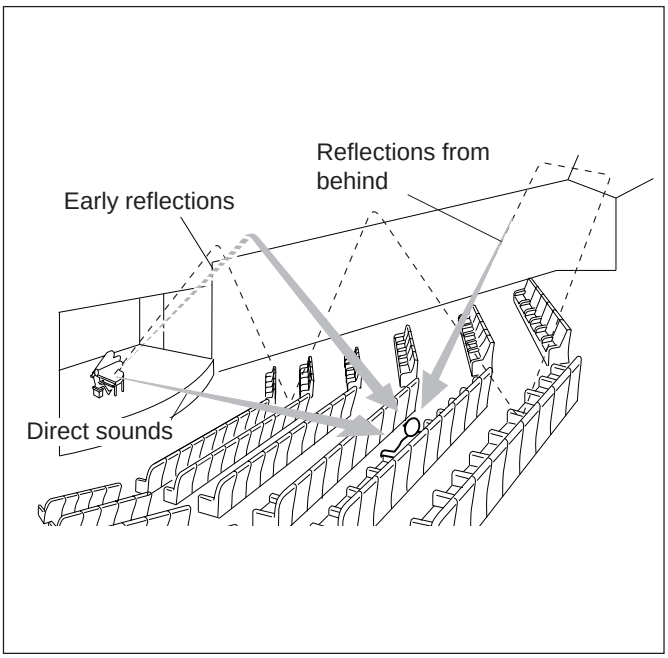
3D ACTION:	Best for action and war movies — where the action is fast and explosive.
3D THEATER:	Reproduces the sound field of a large theater. This mode can be selected when only front speakers are connected to this receiver and “REAR SPK” and “CENTER SPK” are set to “NONE” (see page 14).



DAP modes

The sound heard in a concert hall or club 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. These direct sounds and indirect sounds are the most important elements of the acoustic surround effects. The DAP mode can create these important elements, and gives you a real “being there” feeling. **This mode can be used when the front speakers are connected to this receiver (without respect to the rear/center speaker connection).**
You can select one of the following to your preference while playing an analog or linear PCM source.

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.



Surround modes

With this receiver, you can use four types of the Surround mode. **Following modes cannot be used when only the front speakers are connected to this receiver (without the rear speakers or center speaker).**

Dolby Surround (Dolby Digital and Dolby Pro Logic)*

Used to watch the soundtracks of software encoded with Dolby Digital (bearing the mark DOLBY DIGITAL) or with Dolby Surround (bearing the mark DOLBY SURROUND).
Dolby Surround encoding format records the left front channel, right front channel, center channel, and rear channel (total 4 channels) signals into 2 channels. The Dolby Pro Logic decoder built in this receiver decode these 2 channel signals into original 4 channel signals — matrix-based multichannel reproduction, and allows you to enjoy the realistic stereo sounds in your listening room.
On the other hand, Dolby Digital encoding method (so called a discrete 5.1 channel digital audio format) records and compresses the left front channel, right front channel, center channel, left rear channel, right rear channel, and LFE channel (total 6 channels, but LFE channel is counted as 0.1 channel, therefore called 5.1 channels) signals digitally. Each channel is completely independent from other channel signals to avoid interference, therefore, you can obtain much better sound quality with much stereo and surround effects.
The Dolby Digital decoder built in this receiver can create much more realistic sound field in your listening room. You may feel as if you were in a real theater.
In addition, Dolby Digital enables stereo rear sounds, and sets the cutoff frequency of the rear treble at 20 kHz, comparing to 7 kHz for Dolby Pro Logic. These facts enhance the sound movement and being-there feelings much more than Dolby Pro Logic.

- To enjoy the software encoded with Dolby Digital, you must connect the source component using the digital terminal on the rear of this receiver. (See page 8.)

DTS Digital Surround*

DTS Digital Surround is another discrete 5.1 channel digital audio format available on CD, LD, and DVD software.
Comparing to Dolby Digital, audio compression rate is relatively low. This fact allows DTS Digital Surround format to have more data recorded than Dolby Digital even using the same media, and to add breadth and depth to the reproduced sounds. As a result, DTS Digital Surround features natural, solid and clear sound.

- To enjoy the software encoded with DTS Digital Surround, you must connect the source component using the digital terminal on the rear of this receiver. (See page 8.)

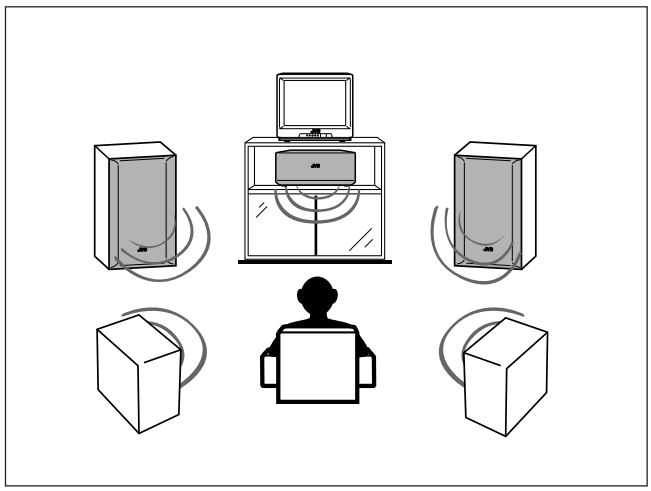
MPEG Multichannel

MPEG Multichannel is another discrete 5.1 channel digital audio format available on DVD software, and uses encoding method called MPEG2-Audio. (MPEG stands for “Motion Picture Expert Group” and has been originally developed for compressing video signals.)
To watch the soundtracks of video software bearing the mark MPEG Multichannel, the receiver can provide you with MPEG Multichannel decoder.
MPEG Multichannel is automatically selected according to software played back and the speaker arrangement you have done.

- To enjoy the software encoded with MPEG Multichannel, you must connect the source component using the digital terminal on the rear of this receiver. (See page 8.)

JVC Theater Surround

In order to reproduce a more realistic sound field in your listening room while playing soundtracks of software encoded with Dolby Surround (bearing the mark DOLBY SURROUND) you can use JVC Theater Surround.



Notes:

- *The DSP modes have no effect on monaural sources.*
- *When you select “DVD MULTI” as the source to play, you cannot select or adjust the DSP modes.*
- *The DD PRO LOGIC indicator lights up when the Dolby Pro Logic decoder built in this receiver is activated.*

DVD MULTI Playback Mode

This receiver provides the DVD MULTI playback mode for reproducing the analog discrete 5.1 channel output mode of the DVD player or other equipment.
You can adjust the DVD MULTI playback mode while playing back a video software such as a DVD using the analog discrete 5.1 channel output mode.

- For the DVD MULTI playback mode connection, see page 7.
- For details on the DVD MULTI playback mode, see page 33.

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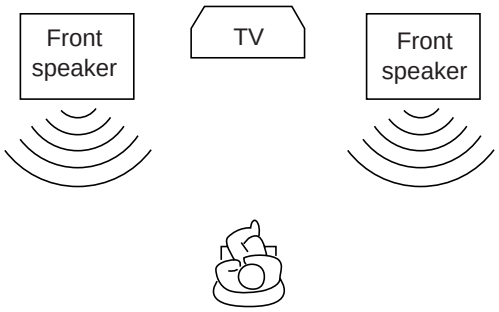
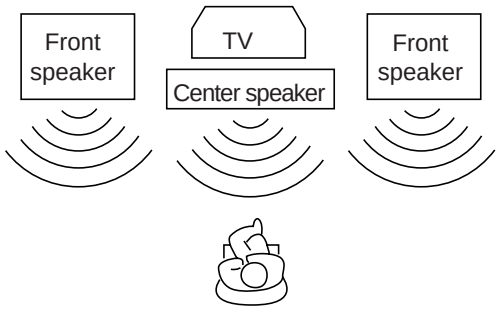
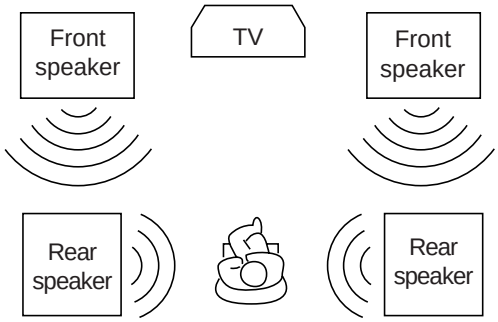
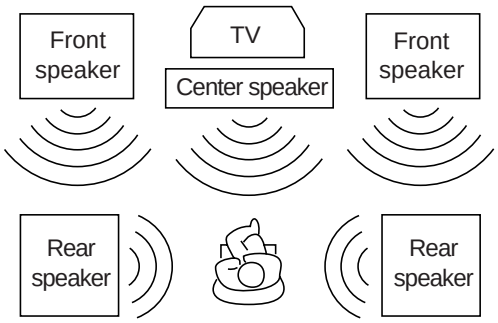
** *Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942 and other world-wide patents issues and pending. “DTS” and “DTS Digital Surround” are trademarks of Digital Theater Systems, Inc. ©1996 Digital Theater Systems, Inc. All rights reserved.*

Available DSP Modes According to the Speaker Arrangement

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 14).

Speaker arrangements	Available DSP modes
	Each time you press DSP MODE on the front panel or SURROUND MODE on the remote control, the DSP modes change as follows: • 3D THEATER • LIVE CLUB • DANCE CLUB • HALL • PAVILION • 3D ACTION • DSP OFF (DSP mode is canceled)
	Each time you press DSP MODE on the front panel or SURROUND MODE on the remote control, the DSP modes change as follows: **By pressing DSP MODE:** • THEATER • LIVE CLUB • DANCE CLUB • HALL • PAVILION • 3D ACTION • DSP OFF (DSP mode is canceled) **To activate the Surround mode,** press SURROUND ON/OFF button so that the lamp on the button lights up. **By pressing SURROUND MODE:** • DOLBY/DTS/MPEG SURROUND (DOLBY PRO LOGIC, DOLBY DIGITAL*, DTS SURROUND**, or MPEG SURROUND***) • THEATER • LIVE CLUB • DANCE CLUB • HALL • PAVILION • 3D ACTION • DSP OFF (DSP mode is canceled) **To activate the Surround mode,** you can also use the SURROUND ON/OFF button.
	
	

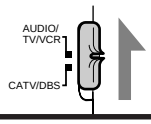
** Activated automatically only when "AUTO/PCM" is selected as the digital input and playback source is encoded with Dolby Digital.*
*** Activated automatically only when "AUTO/PCM" is selected as the digital input and playback source is encoded with DTS Digital Surround.*
**** Activated automatically only when "AUTO/PCM" is selected as the digital input and playback source is encoded with MPEG Multichannel.*

Notes:

- *If Surround mode is canceled while playing back a multichannel source such as Dolby Digital, DTS Digital Surround and MPEG Multichannel, all channel signals are mixed with left and right front channels and are output through the front speakers.*
- *While playing back a multichannel source such as Dolby Digital, DTS Digital Surround and MPEG Multichannel, Theater Surround, DAP modes, and 3D-PHONIC modes cannot be used. On the other hands, if you select a Dolby Digital, DTS Digital Surround and MPEG Multichannel as the source to play while using any of Theater Surround, DAP modes, and 3D-PHONIC modes, the currently selected mode will be canceled and Dolby Digital, DTS Digital Surround or MPEG multichannel mode will be activated.*

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR".



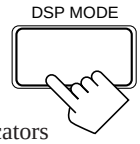
Adjusting the 3D-PHONIC Modes

Once you have adjusted the 3D-PHONIC modes, the adjustment is memorized for each 3D-PHONIC mode.

Before you start, remember...
- **Make sure that you have set the speaker information correctly (see page 14).**
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel:

1. Press DSP MODE repeatedly until "3D ACTION" or "3D THEATER" appears on the display.

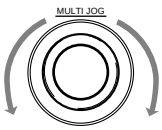


The 3D-PHONIC, DSP and ◻◻ PRO LOGIC indicators also light up on the display.

2. Adjust the effect level.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.
The display changes to show the current setting.

2) Turn MULTI JOG to select the effect level.
- As you turn it, the effect level changes as follows:



DSP EFFECT 1 ⟷ DSP EFFECT 2 ⟷ DSP EFFECT 3
DSP EFFECT 5 ⟷ DSP EFFECT 4

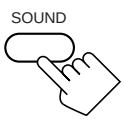
As the number increases, the selected 3D-PHONIC mode becomes stronger.

From the remote control:

1. Press SURROUND MODE repeatedly until "3D ACTION" or "3D THEATER" appears on the display.

The 3D-PHONIC, DSP, and ◻◻ PRO LOGIC indicators also light up on the display.

2. Press SOUND.
The 10 keys are activated for sound adjustments.



3. Press EFFECT to select an effect level you want.

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

DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3
DSP EFFECT 5 ← DSP EFFECT 4

As the number increases, the selected 3D-PHONIC mode becomes stronger.

Adjusting the DAP Modes

Once you have adjusted the DAP modes, the adjustment is memorized for each DAP mode.

Before you start, remember...
- **Make sure that you have set the speaker information correctly (see page 14).**
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- You cannot adjust the rear speaker output level when you have set "REAR SPK" to "NONE." See page 14.
- When the DAP mode is used with the SEA mode (see page 24), sounds may be distorted. If this happens, turn off the SEA mode.

On the front panel:

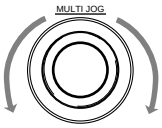
1. Press DSP MODE repeatedly until the DAP mode — LIVE CLUB, DANCE CLUB, HALL, or PAVILION — appears on the display.

The DSP indicator also lights up on the display.
- When you have set "REAR SPK" to "NONE," the 3D-PHONIC indicator also lights up.

2. Adjust the speaker output levels.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until one of the indications appears on the display.
"REAR L LEVEL":
To adjust the left rear speaker level.
"REAR R LEVEL":
To adjust the right rear speaker level.

2) Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).

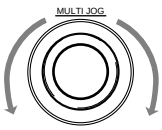


3) Repeat 1) and 2) to adjust the other speaker output level.

3. Adjust the effect level.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.
The display changes to show the current setting.

2) Turn MULTI JOG to select the effect level.
- As you turn it, the effect level changes as follows:

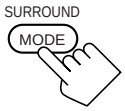


DSP EFFECT 1 ⟷ DSP EFFECT 2 ⟷ DSP EFFECT 3
DSP EFFECT 5 ⟷ DSP EFFECT 4

As the number increases, the selected DAP mode becomes stronger.

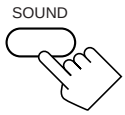
From the remote control:

1. Press SURROUND MODE repeatedly until the DAP mode — LIVE CLUB, DANCE CLUB, HALL, or PAVILION — appears on the display.

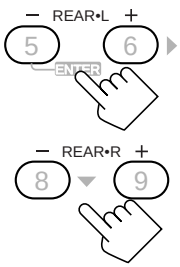


The DSP indicator also lights up on the display.
- When you have set "REAR SPK" to "NONE," the 3D-PHONIC indicator also lights up.

2. Press SOUND.
The 10 keys are activated for sound adjustments.



3. Adjust the speaker output levels.
- To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
- To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).



4. Press EFFECT to select an effect level you want.
- Each time you press the button, the effect level changes as follows:

DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3
DSP EFFECT 5 ← DSP EFFECT 4

As the number increases, the selected DAP mode becomes stronger.

Adjusting the Surround Modes

Once you have adjusted the Surround modes, the adjustment is memorized for each Surround mode.

Dolby/DTS/MPEG Surround adjustments

Before you start, remember...
- **Make sure that you have set the speaker information correctly (see page 14).**
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- You cannot adjust the rear speaker output levels when you have set "REAR SPK" to "NONE." See page 14.
- You cannot adjust the center speaker output level when you have set "CENTER SPK" to "NONE." See page 14.

From the remote control:

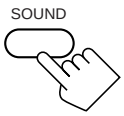
1. Press SURROUND ON/OFF to activate an appropriate surround mode — PRO LOGIC, DOLBY DIGITAL, DTS SURROUND, or MPEG SURROUND.

- Each time you press the button, the Surround mode turns on and off alternately
- When "PRO LOGIC" is selected, the ◻◻ PRO LOGIC indicator lights up on the display.

Note:

You can also press SURROUND MODE to activate an appropriate Surround mode.

2. Press SOUND.
The 10 keys are activated for sound adjustments.



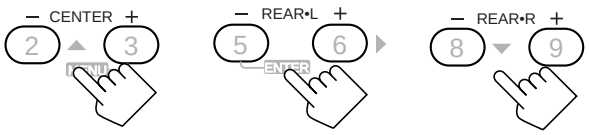
3. Press TEST to check the speaker output balance.
"TEST TONE L" starts flashing on the display, and a test tone comes out of the speakers in the following order:

TEST TONE L (Left front speaker) → TEST TONE C (Center speaker) → TEST TONE R (Right front speaker)
TEST TONE LS (Left rear speaker) ← TEST TONE RS (Right rear speaker)

Notes:
- *You can adjust the speaker output levels without outputting the test tone.*
- *No test tone comes out of the center speaker when "CENTER SPK" is set to "NONE" (see page 14).*
- *No test tone comes out of the rear speakers when "REAR SPK" is set to "NONE" (see page 14).*
- *If the TV is turned on and the proper video input is selected on the TV, the test tone screen will appear on the TV.*

4. Adjust the speaker output levels.

- To adjust the center speaker level, press CENTER –/+ (from –10 dB to +10 dB).
- To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
- To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).



5. Press TEST again to stop the test tone.

On the front panel:

You can also use the buttons on the front panel to adjust the Surround modes. However, no test tone is available when using the buttons on the front panel. So, make adjustments while listening to the sound of the source played back.

1. Press SURROUND ON/OFF to activate an appropriate Surround mode — PRO LOGIC, DOLBY DIGITAL, DTS SURROUND or MPEG SURROUND.

- Each time you press the button, the Surround mode turns on and off alternately.
- When "PRO LOGIC" is selected, the ◻◻ PRO LOGIC indicator lights up on the display.

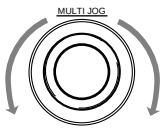
2. Adjust the speaker output levels.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until one of the indications appears on the display.

"CENTER LEVEL":
To adjust the center speaker level.
"REAR L LEVEL":
To adjust the left rear speaker level.
"REAR R LEVEL":
To adjust the right rear speaker level.

2) Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).

3) Repeat 1) and 2) to adjust the other speaker output levels.



JVC Theater Surround adjustments

Before you start, remember...

- **Make sure that you have set the speaker information correctly (see page 14).**
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- You cannot adjust the rear speaker output levels when you have set "REAR SPK" to "NONE." See page 14.
- You cannot adjust the center speaker output level when you have set "CENTER SPK" to "NONE." See page 14.

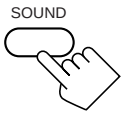
From the remote control:

1. Press SURROUND MODE repeatedly until "THEATER" appears on the display.

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

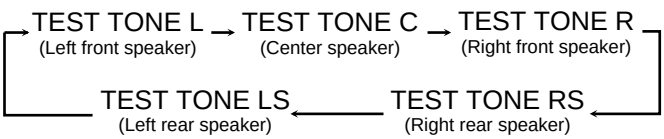
2. Press SOUND.

The 10 keys are activated for sound adjustments.



3. Press TEST to check the speaker output balance.

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

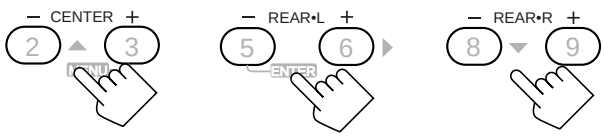


Notes:

- *You can adjust the speaker output levels without outputting the test tone.*
- *No test tone comes out of the center speaker when "CENTER SPK" is set to "NONE" (see page 14).*
- *No test tone comes out of the rear speakers when "REAR SPK" is set to "NONE" (see page 14).*
- *If the TV is turned on and the proper video input is selected on the TV, the test tone screen will appear on the TV.*

4. Adjust the speaker output levels.

- To adjust the center speaker level, press CENTER –/+ (from –10 dB to +10 dB).
- To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
- To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).



5. Press TEST again to stop the test tone.

6. Press EFFECT to select an effect level you want.

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

DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3
DSP EFFECT 5 ← DSP EFFECT 4

As the number increases, JVC Theater Surround becomes stronger.

On the front panel:

You can also use the buttons on the front panel to adjust the Surround modes. However, no test tone is available when using the buttons on the front panel. So, make adjustments while listening to the sound of the source played back.

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

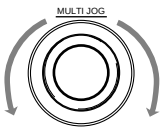
The ◻◻ PRO LOGIC and DSP indicators also light up on the display.

2. Adjust the speaker output levels.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until one of the indications appears on the display.

"CENTER LEVEL":
To adjust the center speaker level.
"REAR L LEVEL":
To adjust the left rear speaker level.
"REAR R LEVEL":
To adjust the right rear speaker level.

2) Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).



3) Repeat 1) and 2) to adjust the other speaker output levels.

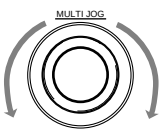
3. Adjust the effect level.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.

The display changes to show the current setting.

2) Turn MULTI JOG to select the effect level.

As you turn it, the effect level changes as follows:



DSP EFFECT 1 ⟷ DSP EFFECT 2 ⟷ DSP EFFECT 3
DSP EFFECT 5 ⟷ DSP EFFECT 4

As the number increases, JVC Theater Surround becomes stronger.

Activating the DSP Modes

You can use only one DSP mode at a time. When a DSP mode is activated, another DSP mode is canceled if in use.

For Dolby Pro Logic, Dolby Digital, DTS Digital Surround and MPEG Multichannel

1. Press SURROUND ON/OFF so that the lamp on the front panel button lights up.

- Each time you press the button, the Dolby/DTS/MPEG Surround turns on and off alternately.

On the front panel

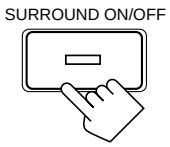
On the remote control

2. Select and play a sound source.

- To enjoy Dolby Pro Logic, play back a software encoded with Dolby Surround and labeled with ◻◻ DOLBY SURROUND mark.
- To enjoy Dolby Digital, play back a software encoded with Dolby Digital and labeled with ◻◻ DOLBY DIGITAL mark.
- To enjoy DTS Digital Surround, play back a software encoded with DTS Digital Surround and labeled with DIGITAL SURROUND dts mark.
- To enjoy MPEG Multichannel, play back a software encoded with MPEG Multichannel and labeled with MPEG Multichannel mark.

To cancel the Dolby/DTS/MPEG Surround mode

Press SURROUND ON/OFF again so that the lamp on the front panel button goes off. ("SURROUND OFF" appears on the display.)



On the front panel

On the remote control

For the other DSP modes

On the front panel:

1. **Press DSP MODE repeatedly until the mode you want appears on the display.**
   - Each time you press the button, the DSP modes change. (See page 27 for more details.)

2. **Select and play a sound source.**
   - To enjoy 3D-PHONIC and JVC Theater Surround, play back a software encoded with Dolby Surround and labeled with DOLBY SURROUND mark.

To cancel the DSP mode

Press DSP MODE repeatedly until "DSP OFF" appears on the display.

From the remote control:

1. **Press SURROUND MODE repeatedly until the DSP mode you want appears on the display.**
   - Each time you press the button, the DSP modes change.

2. **Select and play a sound source.**
   - To enjoy 3D-PHONIC and JVC Theater Surround, play back a software encoded with Dolby Surround and labeled with DOLBY SURROUND mark.

To cancel the DSP mode

Press SURROUND MODE repeatedly until "DSP OFF" appears on the display.

Note:

While playing back MPEG Multichannel or Dolby Digital source through a digital input terminal, you can neither select nor adjust any DSP mode. If any DSP mode is in use, it is temporarily canceled, and normal stereo sounds are reproduced.
To enjoy the MPEG Multichannel and Dolby Digital source with DSP mode, change the input mode from the digital input to the analog input (see page 16.)

–––––––––––––– MEMO ––––––––––––––

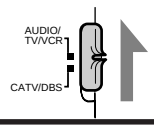
Use this column to write down your DSP mode adjustments for your future reference.

Using the DVD MULTI Playback Mode

This receiver provides the DVD MULTI playback mode for reproducing the analog discrete output mode of the DVD player. Before playing back a DVD, refer also to the manual supplied with the DVD player.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR".



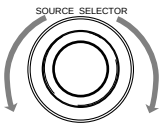
Activating the DVD MULTI Playback Mode

You can adjust the DVD MULTI playback mode while playing back a DVD using the analog discrete output mode on the DVD player. Once you have made adjustments, the receiver memorizes the adjustments until you change them. You also need to set the DVD player to the analog discrete output mode.

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.

On the front panel:

1. Turn SOURCE SELECTOR until "DVD MULTI" appears on the display.



Note:

When you select "DVD MULTI" as the source to play, the DSP mode is canceled temporarily, and the SURROUND ON/OFF and DSP MODE buttons do not work.

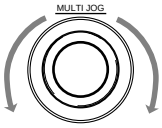
2. Select the analog discrete output mode on the DVD player, and start playing a DVD.
- Refer to the manual supplied with the DVD player.

If you need to make any adjustment, go to the following steps.

3. Adjust the speaker output levels.

1) Press (BALANCE/) SURROUND ADJUST repeatedly until one of the indications appears on the display.
"CENTER LEVEL":
To adjust the center speaker level.
"REAR L LEVEL":
To adjust the left rear speaker level.
"REAR R LEVEL":
To adjust the right rear speaker level.

2) Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).



3) Repeat 1) and 2) to adjust the other speaker output levels.

From the remote control:

1. Press DVD MULTI so that "DVD MULTI" appears on the display.

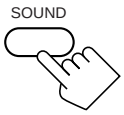
Note:

When you select "DVD MULTI" as the source to play, the DSP mode is canceled temporarily, and the SURROUND ON/OFF and SURROUND MODE buttons do not work.

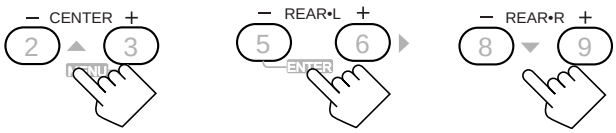
2. Select the analog discrete output mode on the DVD player, and start playing a DVD.
- Refer to the manual supplied with the DVD player.

If you need to make any adjustment, go to the following steps.

3. Press SOUND.
The 10 keys are activated for adjusting the sound.



4. Adjust the speaker output levels.
- To adjust the center speaker level, press CENTER –/+ (from –10 dB to +10 dB).
- To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
- To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).

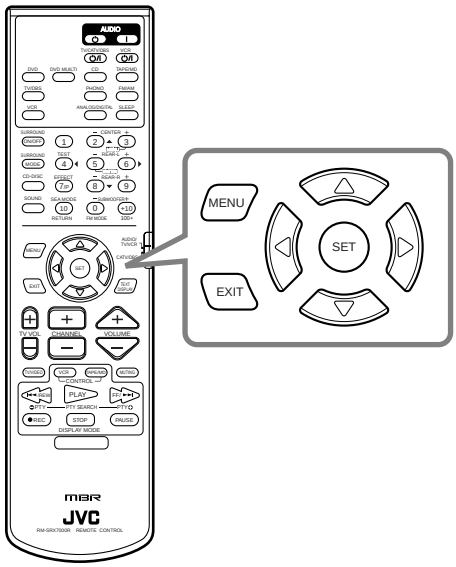


Using the On-Screen Menus

You can use the Menus on the TV screen to control the receiver.
To use this function, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 7), and set the TV's input mode to the proper position to which the receiver is connected.

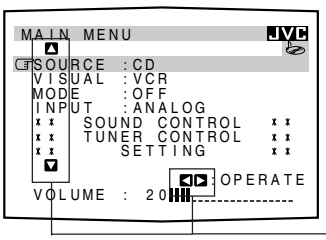
- *When the TV's input mode is incorrect; for example, a different video input or TV tuner mode is selected, you cannot show the Menus on the TV screen.*

On-Screen Operation buttons (on the remote control)



Selecting the Source to Play (Also see page 10)

1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.



Shows the buttons you can use on the current menu.
In this case, use △ / ▽ to move ☞ up and down, and ◁ / ▷ to select, adjust or set the item.

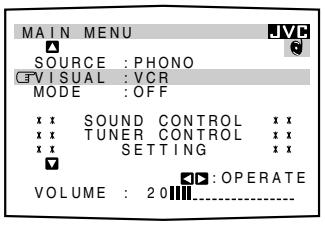
Notes:

- *"INPUT" appears only when the digital input (DIGITAL IN) terminal setting has been correctly done for the digital source currently selected. (See page 16.)*
- *If your TV is not of the PAL-or multi-color system, the TV screen will be distorted.*
- *The on-screen display will disappear if no operation is done for about 1 minute.*

2. **Press △ / ▽ to move ☞ to "SOURCE."**
3. **Press ◁ / ▷ to select the source.**
4. **When you finish, press EXIT.**
   The menu disappears from the TV.

Selecting Different Sources for Picture and Sound (Also see page 11)

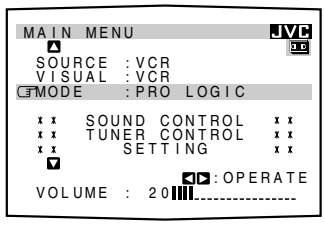
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to "VISUAL."**
3. **Press ◁ / ▷ to select a different video source.**



4. **When you finish, press EXIT.**
   The menu disappears from the TV.

Activating the DSP Modes (Also see page 31)

1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to "MODE."**
3. **Press ◁ / ▷ to select the DSP mode you want to use.**

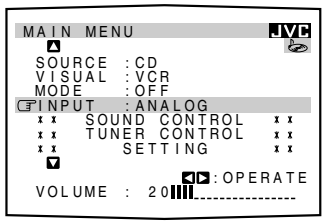


4. **When you finish, press EXIT.**
   The menu disappears from the TV.

Selecting the Analog or Digital Input Mode (Also see page 16)

This selection is only possible when the digital input (DIGITAL IN) terminal setting has been correctly done for the digital source currently selected.

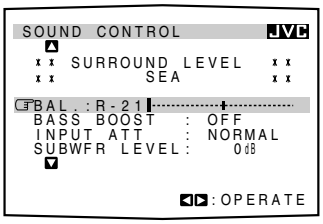
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to "INPUT."**
3. **Press ◁ / ▷ to select the digital or analog input you want.**
   For details, see page 16.



4. **When you finish, press EXIT.**
   The menu disappears from the TV.

Adjusting the Front Speaker Output Balance
(Also see page 13)

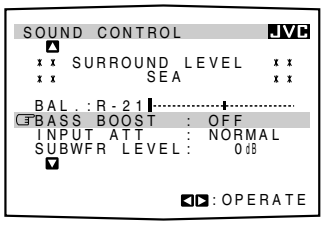
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to “SOUND CONTROL,” then press ◁ / ▷.**
   The SOUND CONTROL menu appears.
3. **Press △ / ▽ to move ☞ to “BAL.” (Balance).**
4. **Press ◁ / ▷ to adjust the balance.**



5. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

Reinforcing the Bass
(Also see page 12)

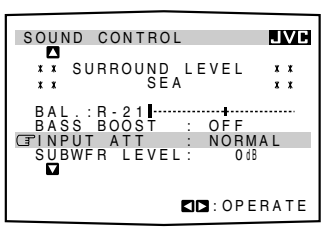
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to “SOUND CONTROL,” then press ◁ / ▷.**
   The SOUND CONTROL menu appears.
3. **Press △ / ▽ to move ☞ to “BASS BOOST.”**
4. **Press ◁ / ▷ to turn the bass boost function “ON” or “OFF.”**



5. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

Attenuating the Input Signal
(Also see page 12)

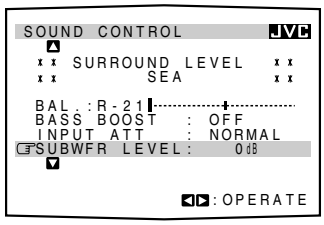
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to “SOUND CONTROL,” then press ◁ / ▷.**
   The SOUND CONTROL menu appears.
3. **Press △ / ▽ to move ☞ to “INPUT ATT.”**
4. **Press ◁ / ▷ to turn the Input Attenuator mode “ATT ON” or “NORMAL.”**



5. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

Adjusting the Subwoofer Output Level
(Also see page 12)

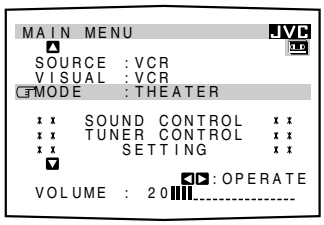
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to “SOUND CONTROL,” then press ◁ / ▷.**
   The SOUND CONTROL menu appears.
3. **Press △ / ▽ to move ☞ to “SUBWFR LEVEL.”**
4. **Press ◁ / ▷ to adjust the subwoofer output level.**



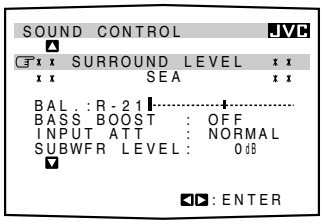
5. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

Adjusting the DSP Modes
(Also see pages 28 – 31)

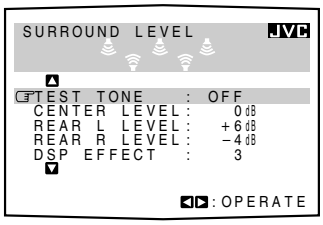
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to “MODE.”**
3. **Press ◁ / ▷ to select the DSP mode you want to adjust.**
   • In this example, “THEATER” is selected.



4. **Press △ / ▽ to move ☞ to “SOUND CONTROL,” then press ◁ / ▷.**
   The SOUND CONTROL menu appears.



5. **Press △ / ▽ to move ☞ to “SURROUND LEVEL,” then press ◁ / ▷.**
   The SURROUND LEVEL menu appears.



6. **Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.**
   On these adjustment menus, you can do the following:

For 3D-PHONIC (3D ACTION, 3D THEATER)**:**
“DSP EFFECT”: Select the effect level.

For DAP (LIVE CLUB, DANCE CLUB, HALL, PAVILION)**:**
- "REAR L LEVEL": Adjust the left rear speaker output level.*
- "REAR R LEVEL": Adjust the right rear speaker output level.*
- "DSP EFFECT": Select the effect level.

For Dolby Pro Logic:
- "TEST TONE": Output a test tone.
- "CENTER LEVEL": Adjust the center speaker output level.**
- "REAR L LEVEL": Adjust the left rear speaker output level.*
- "REAR R LEVEL": Adjust the right rear speaker output level.*

For Dolby Digital, DTS Digital Surround and MPEG Multichannel:
- "TEST TONE": Output a test tone.
- "CENTER LEVEL": Adjust the center speaker output level.**
- "REAR L LEVEL": Adjust the left rear speaker output level.*
- "REAR R LEVEL": Adjust the right rear speaker output level.*

For JVC Theater Surround:
- "TEST TONE": Output a test tone.
- "CENTER LEVEL": Adjust the center speaker output level.**
- "REAR L LEVEL": Adjust the left rear speaker output level.*
- "REAR R LEVEL": Adjust the right rear speaker output level.*
- "DSP EFFECT": Select the effect level.

Notes:

** Not displayed when "REAR SPK" is set to "NONE" (see page 14).*

*** Not displayed when "CENTER SPK" is set to "NONE" (see page 14).*

7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

Activating the DVD MULTI Playback Mode
(Also see page 33)

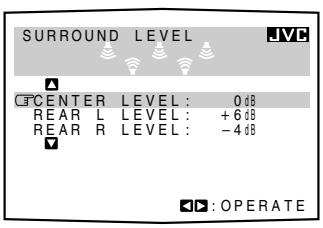
1. Press MENU.
The MAIN MENU appears on the TV.
- Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOURCE."

3. Press ◁ / ▷ to select "DVD MULTI."

4. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

5. Press △ / ▽ to move ☞ to "SURROUND LEVEL," then press ◁ / ▷.
The SURROUND LEVEL menu appears.



6. Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.
On this adjustment menu, you can do the following:
- "CENTER LEVEL": Adjust the center speaker output level.
- "REAR L LEVEL": Adjust the left rear speaker output level.
- "REAR R LEVEL": Adjust the right rear speaker output level.

7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

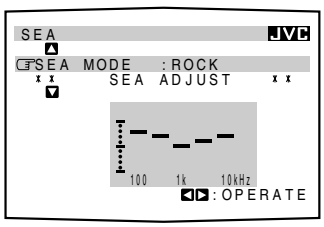
Selecting Your Favorite SEA Mode
(Also see page 24)

1. Press MENU.
The MAIN MENU appears on the TV.
- Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "SEA," then press ◁ / ▷.
The SEA menu appears.

4. Press △ / ▽ to move ☞ to "SEA MODE."



5. Press ◁ / ▷ to select the SEA mode you want.

6. When you finish, press EXIT repeatedly until the menu disappears from the TV.

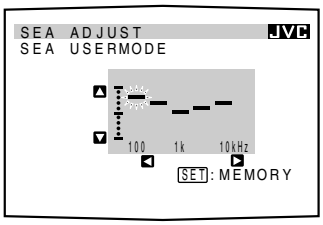
Creating Your Own SEA Mode
(Also see page 24)

1. Press MENU.
The MAIN MENU appears on the TV.
- Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "SEA," then press ◁ / ▷.
The SEA menu appears.

4. Press △ / ▽ to move ☞ to "SEA ADJUST."
The SEA ADJUST menu appears.



5. Press △ / ▽ / ◁ / ▷ to adjust the SEA mode as you want.
◁ / ▷ : Select the frequency ranges.
△ / ▽ : Adjust the frequency levels.

6. Press SET to store the setting into the SEA USERMODE.
- If you press EXIT, without pressing SET in this step, you can return to the SEA menu. (The adjustment you have made is active but not stored.)

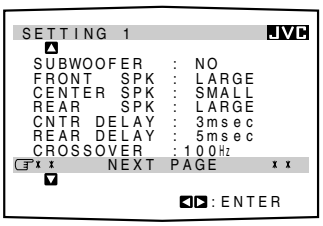
7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

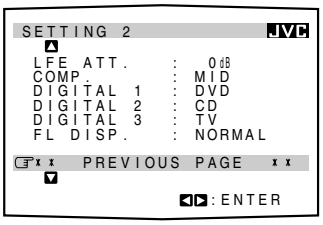
Setting the Basic Setting Items (Also see pages 13 – 17)

1. Press MENU.
The MAIN MENU appears on the TV.
- Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SETTING," then press ◁ / ▷.
The SETTING 1 or SETTING 2 menu appears.

3. Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.
- To go to the SETTING 2 menu, move ☞ to "NEXT PAGE," then press ◁ / ▷.
- To go back to the SETTING 1 menu, move ☞ to "PREVIOUS PAGE," then press ◁ / ▷.





On the SETTING 1 and 2 menus, you can do the following:

"SUBWOOFER":	Set the subwoofer information (see page 13).
"FRONT SPK":	Set the front speaker information (see page 14).
"CENTER SPK":	Set the center speaker information (see page 14).
"REAR SPK":	Set the rear speaker information (see page 14).
"CNTR DELAY":	Adjust the delay time of the center speaker output (see page 14).*
"REAR DELAY":	Adjust the delay time of the rear speaker output (see page 14).**
"CROSSOVER":	Set the crossover frequency (see page 15).
"LFE ATT.":	Set the low frequency effect attenuator level (see page 15).
"COMP.":	Set the dynamic range compression (see page 15).
"DIGITAL 1/2/3":	Set the digital input terminals (see page 16).
"FL DISP.":	Shows the disc text information on the display (see page 17).

Notes:

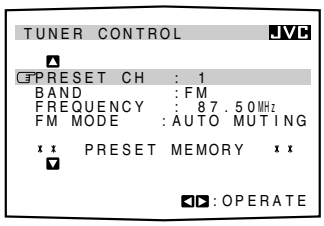
** Not adjustable when "CENTER SPK" is set to "NONE" (see page 14).*
*** Not adjustable when "REAR SPK" is set to "NONE" (see page 14).*

4. When you finish, press EXIT repeatedly until the menu disappears from the TV.

Operating the Tuner (Also see pages 19 and 20)

1. Press MENU.
The MAIN MENU appears on the TV.
- Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "TUNER CONTROL," then press ◁ / ▷.
The TUNER CONTROL menu appears.



3. Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.
On the TUNER CONTROL menu, you can do the following:

"PRESET CH":	Select a preset channel station.
"BAND":	Select the band.
"FREQUENCY":	Tune in a station manually.
"FM MODE":	Select the FM reception mode.*
"PRESET MEMORY":	See "Storing the Preset Stations" on the next page.

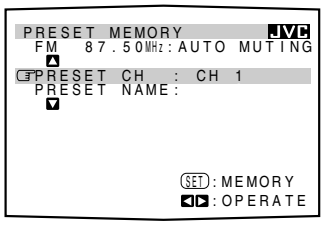
Note:

** Not displayed when an AM (MW/LW) station is selected.*

4. When you finish, press EXIT repeatedly until the menu disappears from the TV.

Storing the Preset Stations (Also see page 19)

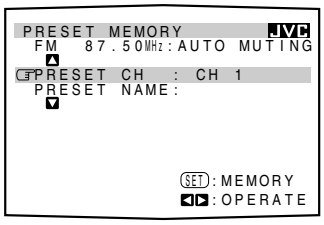
1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to "TUNER CONTROL," then press ◁ / ▷.**
   The TUNER CONTROL menu appears.
3. **Tune into a station on the TUNER CONTROL menu, referring to "Operating the Tuner" on the previous page.**
4. **Press △ / ▽ to move ☞ to "PRESET MEMORY," then press ◁ / ▷.**
   The PRESET MEMORY menu appears.



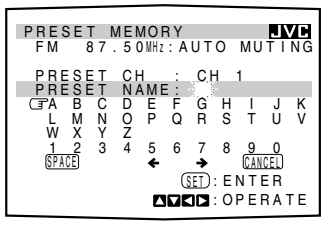
5. **Press ◁ / ▷ to select a preset station number you want.**
6. **Press SET to store the setting.**
7. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

Assigning Names to Preset Stations (Also see page 20)

1. **Press MENU.**
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.
2. **Press △ / ▽ to move ☞ to "TUNER CONTROL," then press ◁ / ▷.**
   The TUNER CONTROL menu appears.
3. **Press △ / ▽ to move ☞ to "PRESET CH."**
4. **Press ◁ / ▷ to select a preset station.**
5. **Press △ / ▽ to move ☞ to "PRESET MEMORY," then press ◁ / ▷.**
   The PRESET MEMORY menu appears.



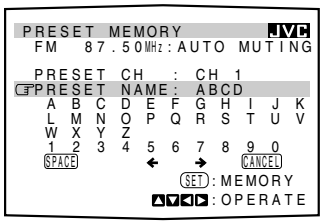
6. **Press △ / ▽ to move ☞ to "PRESET NAME," then press SET.**
   The character entry screen appears.

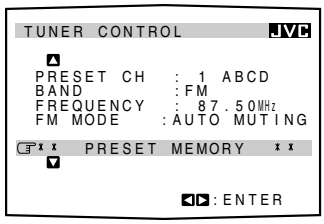


7. **Press △ / ▽ / ◁ / ▷ to move ☞ in front of a character you want.**
   You can also select the following:

   SPACE : To enter space
   CANCEL : To erase the character
   ← → : To go back to the previous character position or go to the next character position

8. **Press SET to enter the selected character.**
9. **Repeat steps 7 and 8 to enter up to four characters.**
10. **Press △ / ▽ / ◁ / ▷ to move ☞ to "PRESET NAME," then press SET to store the setting.**
    The TUNER CONTROL menu appears again.





11. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

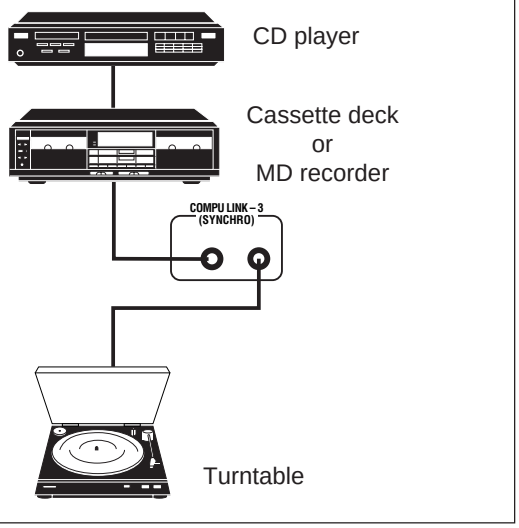
You can show the RDS information on the TV screen.
For details, see page 21.

COMPU LINK Remote Control System

The COMPU LINK remote control system allows you to operate JVC audio components through the remote sensor on the receiver.

To use this remote control system, you need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see below) in addition to the connections using cables with RCA pin plugs (see pages 5 and 6).

- Make sure that the AC power cords of these components are unplugged before connection. Plug the AC power cords only after all connections are complete.



Notes:

- *If your audio component has two COMPU LINK-3 (SYNCHRO) jacks, you can use either one. If it has only one COMPU LINK-3 (SYNCHRO) jack, connect it so that it is the last item in the series of components. (For example, the turntable or CD player in the diagram above.)*
- *To operate the cassette deck or MD recorder using the COMPU LINK remote control system, set the source name correctly. (See page 13.)*
- *Refer also to the manuals supplied with your audio components.*

This remote control system allows you to use four functions listed below.

Remote Control through the Remote Sensor on the Receiver

You can control the connected audio components through the remote sensor on the receiver using this remote control. Aim the remote control directly at the remote sensor on the receiver. For details, see pages 45 and 46.

Automatic Source Selection

When you press the play (►) button on a connected component or on its own remote control, the receiver automatically turns on and changes the source to the component. On the other hand, if you select a new source on the receiver or on the remote control, the selected component begins playing immediately.
In both cases, the previously selected source continues playing without sound for a few seconds.

Automatic Power On/Off (Standby): only possible with the COMPU LINK-3 connection

Both the CD player and cassette deck (or MD recorder) turn on and off (standby) along with the receiver.
When you turn on the receiver, the CD player or cassette deck (or MD recorder) will turn on automatically, depending on which component has been previously selected.
When you turn off the receiver, both the CD player and cassette deck (or MD recorder) will turn off (standby).

Synchronized Recording

Synchronized recording means the cassette deck (or MD recorder) starts recording as soon as a CD or a record begins playing.

To use synchronized recording, follow these steps:

1. **Put a tape in the cassette deck (or an MD in the MD recorder), and a disc in the CD player (or a record on the turntable).**
2. **Press the record (●) button and the pause (II) button on the cassette deck (or MD recorder) at the same time.**
   This puts the cassette deck (or MD recorder) into recording pause.
   If you do not press the record (●) button and pause (II) button at the same time, the synchronized recording feature will not operate.
3. **Press the play (►) button on the CD player or on the turntable.**
   The source changes on the receiver, and as soon as play starts, the cassette deck (or MD recorder) starts recording. When the play ends, the cassette deck (or MD recorder) enters recording pause, and stops about 4 seconds later.

Notes:

- *During synchronized recording, the selected source cannot be changed.*
- *If the power of any component is shut off during synchronized recording, the COMPU LINK remote control system may not operate properly. In this case, you must start again from the beginning.*

TEXT COMPU LINK Remote Control System

The TEXT COMPU LINK remote control system has been newly developed to deal with the disc information recorded in the CD Text and MDs. Using these information in the discs, you can operate the CD player or MD recorder equipped with the TEXT COMPU LINK remote control system through the receiver.*

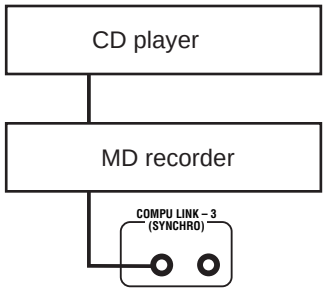
CONNECTIONS:

To use this remote control system, you need to connect the CD player and/or MD recorder you want to operate, following the procedures below.

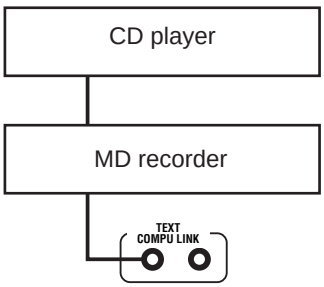
1. **If you have already plugged your CD player, MD recorder, and this receiver into the AC outlets, unplug their AC power cords first.**

2. **Connect your CD player, MD recorder, and this receiver as follows, through the COMPU LINK-3 (SYNCHRO) jacks and TEXT COMPU LINK jacks.**

   1) **COMPU LINK-3 (SYNCHRO) jacks:** Use the cables with the monaural mini-plugs (not supplied with this receiver).



   2) **TEXT COMPU LINK jacks:** Use the cables with the stereo mini-plugs (not supplied with this receiver).



3. **Connect your CD player, MD recorder and this receiver, using the cables with RCA pin plugs (see pages 5 and 6).**

4. **Plug the AC power cords of these components above into the AC outlets.**

5. **When turning on these components for the first time, turn on the connected components first, then turn on this receiver.**

FUNCTIONS:

This remote control system allows you to use the functions listed below.

Displaying the Disc Information on the TV screen

Disc information such as its performer and disc title (and track titles only when a CD Text is selected) is shown on the TV screen.

Disc Search: Only for CD Player

This remote control system can allow you to search discs by the performer, disc title, and music genre.
With this disc search, you can easily find the disc you want to play.

Disc Title Input:

If your CD player or MD recorder has the disc memory function, you can input the following information about the normal audio CDs or MDs on the TV screen.

- For CDs: Performer, disc title, and music genre
- For MDs: Disc title and song titles

**What is a CD Text?*

In a CD Text, some information about the disc (its disc title, performer, composer, arranger, etc.) is recorded.

Notes:

- *If your audio component has two COMPU LINK-3 (SYNCHRO) jacks, you can use either one. If it has only one COMPU LINK-3 (SYNCHRO) jack, connect it so that it is the last item in the series of components. (For example, the CD player in the diagram to the left.)*
- *If your audio component has two TEXT COMPU LINK jacks, you can use either one. If it has only one TEXT COMPU LINK jack, connect it so that it is the last item in the series of components. (For example, the CD player in the diagram to the left.)*
- *"TEXT COMPULINK SOURCE NOT CONNECTED" appears on the display in the following cases:*
  –When the connections explained to the left are not correctly done.
  –When you try to use the TEXT COMPU LINK function a few seconds after you turn on the connected equipment. This is not a malfunction of the units.
- *Refer also to the manuals supplied with your CD player or MD recorder.*

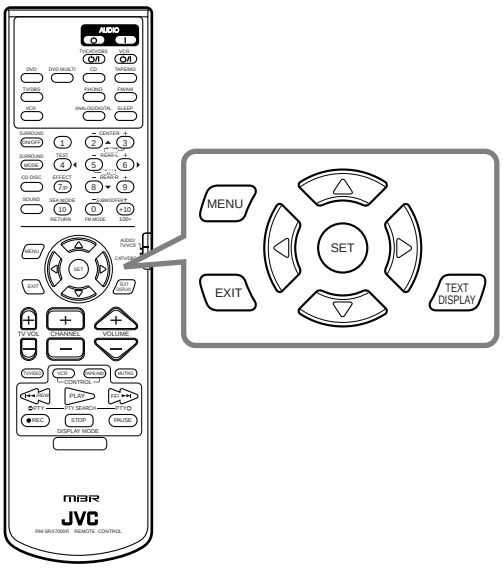
IMPORTANT:

If you turn on the receiver before turning on the other components after connecting the components, the TEXT COMPU LINK remote control system does not work correctly.
If this happens:
1. Turn off all the components including this receiver.
2. Turn on the connected components.
3. Turn on this receiver.

OPERATIONS

To use this remote control system, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 7), and set the TV's input mode to the proper position to which the receiver is connected. **Make sure you have connected the CD player or MD recorder equipped with the TEXT COMPU LINK remote control system. If not, you cannot use the following functions.**

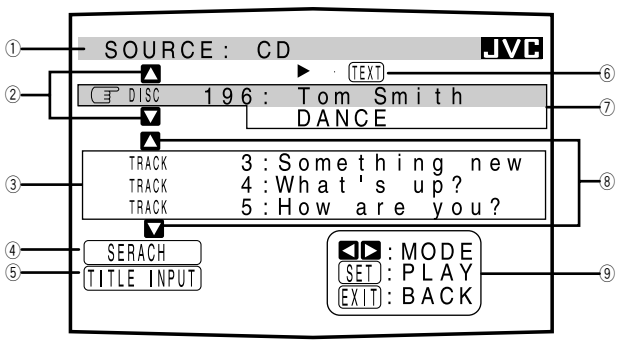
On-Screen Operation buttons (on the remote control)



Showing the Disc Information on the TV Screen

Press TEXT DISPLAY while "CD" or "MD" is selected as the source.

The Disc Information screen appears on the TV.



① Source name: CD or MD
② Select ▲ or ▼, then press SET to change the disc.
③ Track numbers and track titles.
- The current playing (selected) track is indicated in yellow.
- When you move ☞ to a track number, you can change the track information by pressing ◁ / ▷. Each time you press the button, track information alternates between its track title and its performer. (You can also start playing the track by pressing SET.)

④ Select this (move ☞ in front), then press SET to go to the DISC SEARCH screen (see page 42).
⑤ Select this (move ☞ in front), then press SET to go to the TITLE INPUT screen (see page 43).
⑥ This appears only when a CD Text is selected.
⑦ Disc information such as the disc title, performer, and music genre.
When this is selected (☞ in front), you can change the disc information by pressing ◁ / ▷. Each time you press the button, disc information (see "Note on ⑦") changes.
⑧ Select ▲ or ▼, then press SET to change the track.
⑨ Usable buttons and their functions for the current selection.
Indication here will be changed according to what is currently selected (☞ in front) on the screen. See "Note on ⑨."

Note on ⑦:

The following information will appear on the display:
- *For CD Texts — Disc title, Performer, Genre, Song writer, Composer, Arranger, Message*
  Only recorded information will be shown. If there is no data, "NO DATA" will appear.
- *For MDs — Disc title*
  If there is no data, "NO DATA" will appear.

Note on ⑨:

For example, the SET button will be used to start play (PLAY), to go to the next screen (ENTER), and to determine the selection (ENTER).

To exit from the Disc information screen:

Press EXIT.

Notes:

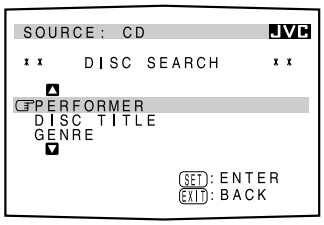
- *The on-screen display will disappear in the following cases:*
  – if no operation is done for about 10 minutes.
  – if you do any operation other than explained in this section.
- *To control the MD recorder using the TEXT COMPU LINK remote control system, you have to change the source name shown on the display from "TAPE" to "MD." (See page 13.)*
- *Some special characters and marks cannot be displayed correctly.*

Searching for a Disc (Only for the CD player)

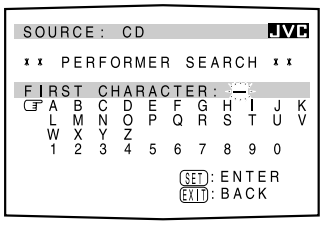
Search for a disc by its performer:

1. **Press TEXT DISPLAY while "CD" is selected as the source.**
   The Disc Information screen appears on the TV.

2. **Press △ / ▽ to move ☞ to "SEARCH," then press SET.**
   The DISC SEARCH screen appears .



3. **Press △ / ▽ to move ☞ to "PERFORMER", then press SET.**
   The PERFORMER SEARCH screen appears.



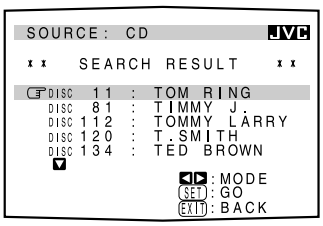
4. **Press △ / ▽ / ◁ / ▷ to move ☞ in front of the first character of the performer you want to search, then press SET.**

   To correct the incorrect entry, press △ / ▽ / ◁ / ▷ to move ☞ in front of the correct character, then press SET.

   Note:

   Symbols such as @, # or $ cannot be available for search.

5. **Press SET again.**
   Disc search starts, then the SEARCH RESULT screen, showing the performers, appears.

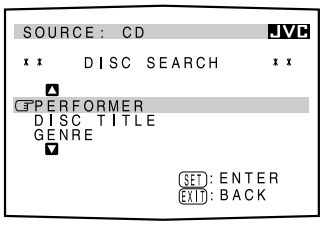


6. **On the SEARCH RESULT screen, you can do the following:**
   - **Changing the indication of the disc information:** Press △ / ▽ to move ☞ to a searched disc, then press ◁ / ▷. Each time you press ◁ / ▷, the disc information alternates between its performer and its disc title.
   - **Starting a disc play and going to the Disc Information screen (see page 41):** Press △ / ▽ to move ☞ to a searched disc, then press SET.
   - **Showing unseen disc information (if more than 5 discs are listed as a result of the search):** Press △ / ▽ until they appear.
   - **Going back to the PERFORMER SEARCH screen:** Press EXIT.

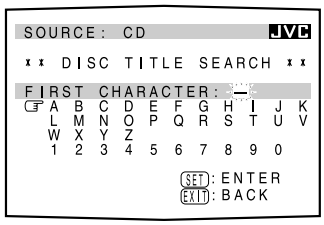
Search for a disc by its disc title:

1. **Press TEXT DISPLAY while "CD" is selected as the source.**
   The Disc Information screen appears on the TV.

2. **Press △ / ▽ to move ☞ to "SEARCH," then press SET.**
   The DISC SEARCH screen appears.



3. **Press △ / ▽ to move ☞ to "DISC TITLE, then press SET.**
   The DISC TITLE SEARCH screen appears.



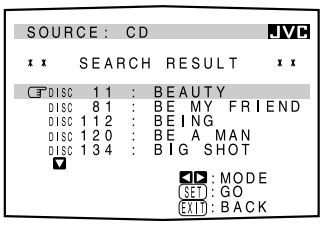
4. **Press △ / ▽ / ◁ / ▷ to move ☞ in front of the first character of the disc title you want to search, then press SET.**

   To correct the incorrect entry, press △ / ▽ / ◁ / ▷ to move ☞ in front of the correct character, then press SET.

   Note:

   Symbols such as @, # or $ cannot be available for search.

5. **Press SET again.**
   Disc search starts, then the SEARCH RESULT screen, showing the disc titles, appears.

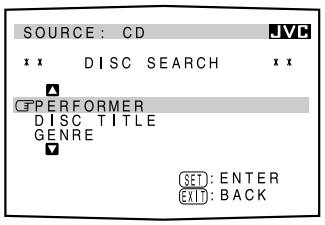


6. **On the SEARCH RESULT screen, you can do the following:**
   - **Changing the indication of the disc information:** Press △ / ▽ to move ☞ to a searched disc, then press ◁ / ▷. Each time you press ◁ / ▷, the disc information alternates between its disc title and its performer.
   - **Starting a disc play and going to the Disc Information screen (see page 41):** Press △ / ▽ to move ☞ to a searched disc, then press SET.
   - **Showing unseen disc information (if more than 5 discs are listed as a result of the search):** Press △ / ▽ until they appear.
   - **Going back to the DISC TITLE SEARCH screen:** Press EXIT.

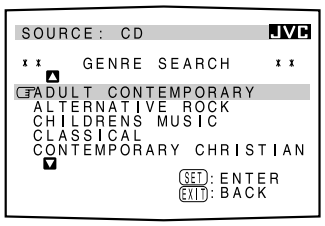
Search for a disc by its genre:

1. **Press TEXT DISPLAY while "CD" is selected as the source.**
   The Disc Information screen appears on the TV.

2. **Press △ / ▽ to move ☞ to "SEARCH," then press SET.**
   The DISC SEARCH screen appears.



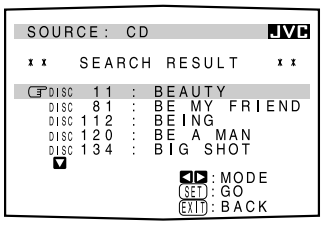
3. **Press △ / ▽ to move ☞ to "GENRE", then press SET.**
   The GENRE SEARCH screen appears.



4. **Press △ / ▽ to move ☞ to the genre you want to search, then press SET.**

   To show the unseen genres, press △ / ▽ until they appear.

   Disc search starts, then the SEARCH RESULT screen, showing the disc titles, appears.



5. **On the SEARCH RESULT screen, you can do the following:**
   - **Changing the indication of the disc information:** Press △ / ▽ to move ☞ to a searched disc, then press ◁ / ▷. Each time you press ◁ / ▷, the disc information alternates between its disc title and its performer.
   - **Starting a disc play and going to the Disc Information screen (see page 41):** Press △ / ▽ to move ☞ to a searched disc, then press SET.
   - **Showing unseen disc information (if more than 5 discs are listed as a result of the search):** Press △ / ▽ until they appear.
   - **Going back to the GENRE SEARCH screen:** Press EXIT.

■ Entering the Disc Information

For the CD Player with the disc memory function:

You can use the disc memory function through this receiver.
The disc information (its performer, disc title, and music genre) of normal audio CDs will be stored into the memory built in the CD player.
For the disc memory function, refer to the manual supplied with your CD player.

- The performer, disc title, and music genre information are usually recorded in a CD Text. However, if a CD Text has no genre information recorded in the disc itself, you can input its music genre by yourself.

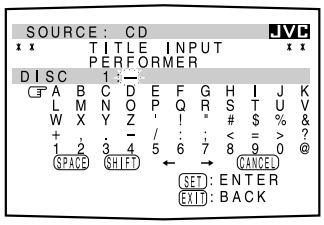
Note:

You can enter the TITLE INPUT screens for a CD Text and input its titles. However, you cannot store the titles you have input for a CD Text.

Example: Entering the following information for Disc 1
Performer: "MICHAEL"
Disc title: "MY FAVORITE"

1. **Press TEXT DISPLAY while "CD" is selected as the source.**
   The Disc Information screen appears on the TV.

2. **Press △ / ▽ to move ☞ to "TITLE INPUT," then press SET.**
   The TITLE INPUT: PERFORMER screen appears.

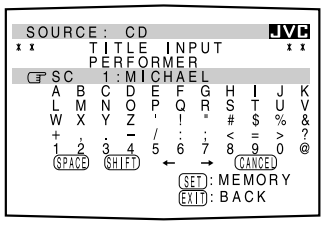


3. **Press △ / ▽ / ◁ / ▷ to move ☞ in front of a character you want, then press SET to enter the character.**
   - If the current CD is a CD Text, go to step 5 without entering the performer.

   To use the lower case letters, press △ / ▽ / ◁ / ▷ to move ☞ to SHIFT , then press SET.

   To use the upper case letters again, press △ / ▽ / ◁ / ▷ to move ☞ to SHIFT , then press SET.

4. Repeat step 3 until you finish putting a performer name (up to 32 characters).



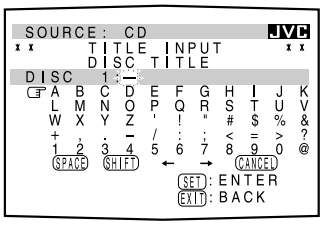
To insert a space, press △ / ▽ / ◁ / ▷ to move ☞ to SPACE , then press SET.

To correct an incorrect character:

1) Press △ / ▽ / ◁ / ▷ to move ☞ to ← or →, then press SET until the incorrect character is selected.
2) Press △ / ▽ / ◁ / ▷ to move ☞ to CANCEL , then press SET to erase the character.
3) Press △ / ▽ / ◁ / ▷ to move ☞ in front of the correct character, then press SET to enter the correct character.

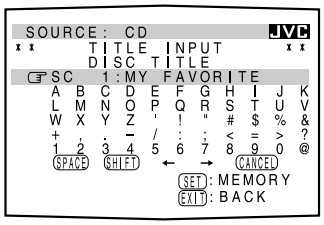
5. Press △ / ▽ / ◁ / ▷ to move ☞ to "DISC 1: MICHAEL (in this example)," then press SET.

The TITLE INPUT: DISC TITLE screen appears.



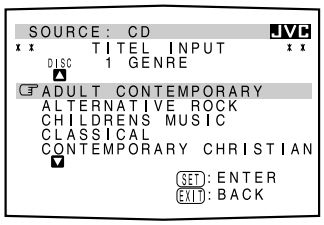
6. Enter the disc title, referring to steps 3 and 4.

- If the current CD is a CD Text, go to the next step without entering the disc title.



7. Press △ / ▽ / ◁ / ▷ to move ☞ to "DISC 1: MY FAVORITE (in this example)," then press SET.

The TITLE INPUT: DISC 1 GENRE screen appears.



8. Press △ / ▽ to move ☞ to the genre you want, then press SET.

The Disc Information screen appears again.

To show the unseen genres, press △ / ▽ until they appear.

For the MD recorder:

You can write the disc information (disc title and song titles) into the disc. You can only write the song title for the song currently selected.

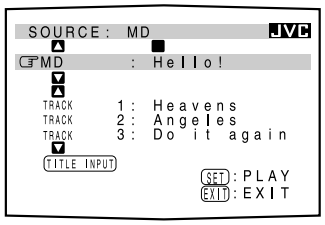
- If you have the CD-MD combination deck, you can also enter the disc information (its performer, disc title, and its music genre) of normal audio CDs into the memory built in the CD-MD combination deck. (To do this, follow the procedure of "For the CD Player with the disc memory function" on the page 43.)
- If you change the disc or song title with more than 32 characters, the characters following the 32nd will be erased from the title.

1. Press TEXT DISPLAY while "MD" is selected as the source.

The Disc Information screen appears on the TV.

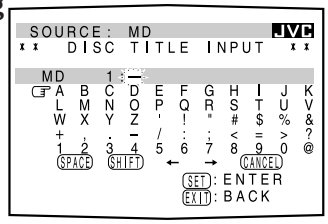
2. Press △ / ▽ to move ☞ to "TITLE INPUT," then press SET.

The DISC TITLE INPUT screen appears.



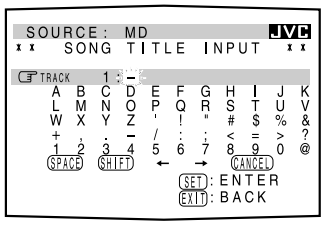
3. Enter the title, referring to steps 3 and 4 of "For the CD Player with the disc memory function" on page 43.

- You can enter up to 32 characters for the disc title.



4. Press △ / ▽ / ◁ / ▷ to move ☞ to the disc title you have just entered, then press SET.

The disc title is stored into the memory, and the SONG TITLE INPUT screen for the currently selected song appears.



- You can enter a song title for the song currently selected (indicated in yellow on the TV screen).

5. Enter the song title, referring to steps 3 and 4 of "For the CD Player with the disc memory function" on page 43.

- You can enter up to 32 characters for the song title.

6. Press △ / ▽ / ◁ / ▷ to move ☞ to the song title you have just entered, then press SET.

The song title is stored into the memory, and the Disc Information screen appears again.

Operating JVC's Audio/Video Components

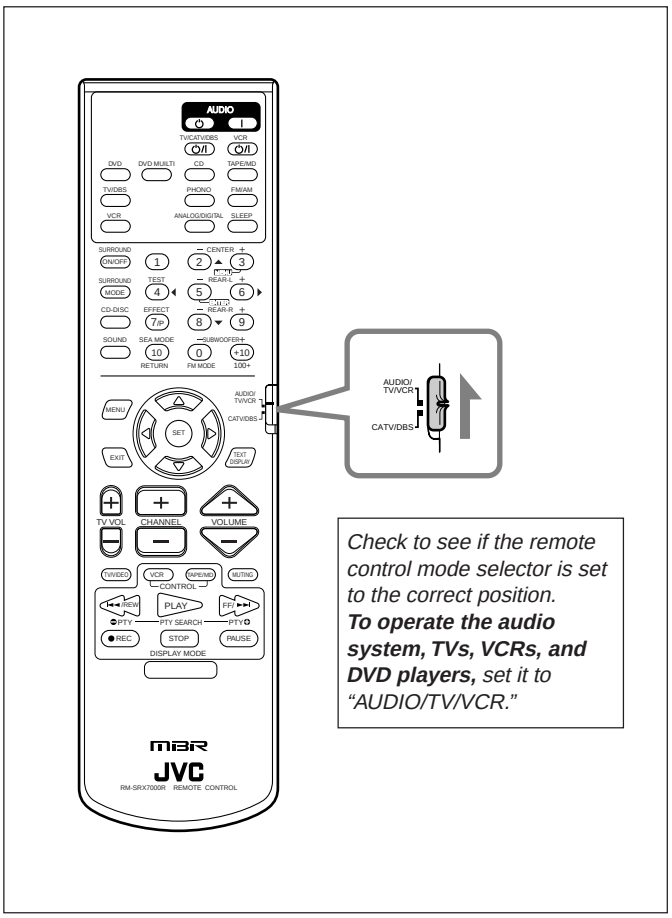
You can operate JVC's audio and video components with this receiver's remote control, since control signals for JVC components are preset in the remote control.

Operating Audio Components

IMPORTANT:

To operate JVC's audio components using this remote control:

- You need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see page 39) in addition to the connections using cables with RCA pin plugs (see pages 5 and 6).
- Aim the remote control directly at the remote sensor on the receiver.
- If you use the buttons on the front panel or the menu function to choose a source, the remote control will not operate that source. To operate a source with the remote control, the source must be selected using source selecting buttons on the remote control.
- To operate the cassette deck or MD recorder using the COMPU LINK remote control system, set the source name correctly. (See page 13.)
- Refer also to the manuals supplied with your components.



Check to see if the remote control mode selector is set to the correct position.
***To operate the audio system, TVs, VCRs, and DVD players,** set it to "AUDIO/TV/VCR."*

Tuner

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

FM/AM:	Alternates between FM and AM (MW/LW).

After pressing FM/AM (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations:

1 – 10, +10:	Selects a preset channel number directly. For channel number 5, press 5. For channel number 15, press +10, then 5. For channel number 20, press +10, then 10.
FM MODE:	Changes the FM reception mode.
PTY SEARCH:	Searches for a program by PTY codes.
PTY – / +:	Selects the PTY codes.
DISPLAY MODE:	Shows the RDS signals.

Sound control section (Amplifier)

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

SURROUND ON/OFF:	Turns on or off the Surround modes — Dolby Pro Logic, Dolby Digital, DTS Digital Surround and MPEG Multichannel.
SURROUND MODE:	Selects the DSP modes.

After pressing SOUND (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations:

SEA MODE:	Changes the SEA modes.
SUBWOOFER – / +:	Adjusts the subwoofer output level.
CENTER – / +:	Adjusts the center speaker output level.
REAR•L – / +:	Adjusts the left rear speaker output level.
REAR•R – / +:	Adjusts the right rear speaker output level.
EFFECT:	Selects the effect level.
TEST:	Turns on or off the test tone output.

Note:

After adjusting sounds, press the corresponding source selecting button or CD-DISC to operate your target source by using the 10 keys; otherwise, the 10 keys cannot be used for operating your target source.

CD player

After pressing CD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the CD player:

PLAY:	Starts playing.
⏮:	Returns to the beginning of the current (or previous) track.
⏭:	Skips to the beginning of the next track.
STOP:	Stops playing.
PAUSE:	Pauses playing. To release it, press PLAY.
1 – 10, +10:	Selects a track number directly. For track number 5, press 5. For track number 15, press +10, then 5. For track number 20, press +10, then 10. For track number 30, press +10, +10, then 10.

CD player-changer

After pressing CD-DISC (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a CD player-changer:

PLAY:	Starts playing.
⏮:	Returns to the beginning of the current (or previous) track.
⏭:	Skips to the beginning of the next track.
STOP:	Stops playing.
PAUSE:	Pauses playing. To release it, press PLAY.
1 – 6, 7/P:	Selects the number of a disc installed in a CD player-changer.

After pressing CD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the CD player-changer:

1 – 10, +10:	Selects a track number directly. For track number 5, press 5. For track number 15, press +10, then 5. For track number 20, press +10, then 10. For track number 30, press +10, +10, then 10.

Turntable

After pressing PHONO (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a turntable:

PLAY:	Starts playing.
STOP:	Stops operations.

Cassette deck

After pressing TAPE/MD or TAPE/MD CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a cassette deck:

PLAY:	Starts playing.
◄◄:	Fast winds the tape from right to left.
►►:	Fast winds the tape from left to right.
STOP:	Stops operations.
PAUSE:	Pauses playing. To release it, press PLAY.
● REC:	Press this button with the PLAY button to start recording. Press this button with the PAUSE button to enter recording pause.

MD recorder

After pressing TAPE/MD or TAPE/MD CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the MD recorder:

PLAY:	Starts playing.
⏮:	Returns to the beginning of the current (or previous) track.
⏭:	Skips to the beginning of the next track.
STOP:	Stops playing.
PAUSE:	Pauses playing. To release it, press PLAY.
● REC:	Press this button with the PLAY button to start recording. Press this button with the PAUSE button to enter recording pause.

Note:

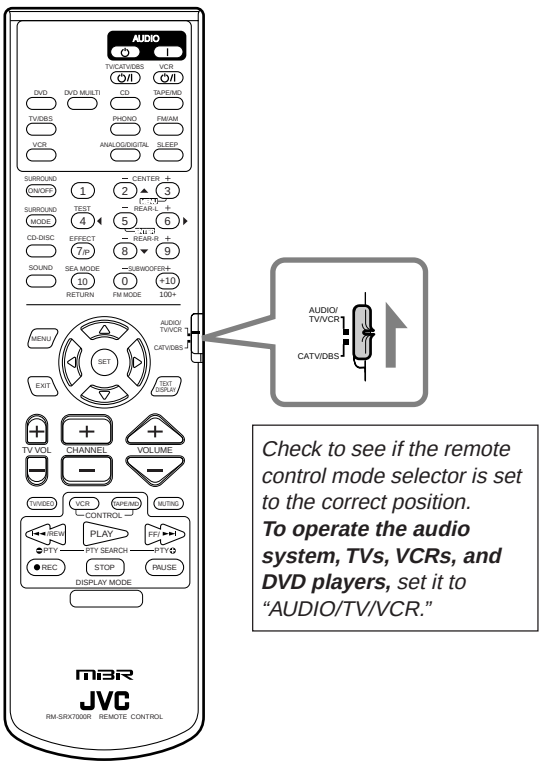
You can use either TAPE/MD button or the TAPE/MD CONTROL button to activate the buttons listed above. If you press TAPE/MD, the playing source also changes. On the other hand, if you press TAPE/MD CONTROL, the playing source does not change.

Operating Video Components

IMPORTANT:

To operate JVC's video components using this remote control:

- Aim the remote control directly at the remote sensor on the VCR, DVD player or TV, not on the receiver.
- Some JVC VCRs can accept two types of the control signals — remote code "A" and "B." Before using this remote control, make sure that the remote control code of the target VCR is set to code "A."



Check to see if the remote control mode selector is set to the correct position.
To operate the audio system, TVs, VCRs, and DVD players, *set it to "AUDIO/TV/VCR."*

VCR

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

VCR ⏻/I: Turns on or off the VCR.

After pressing VCR or VCR CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the VCR:

1 – 9, 0:	Selects the TV channels on VCR.
PLAY:	Starts playing.
◄◄:	Rewinds a tape.
►►:	Fast winds a tape.
STOP:	Stops operations.
PAUSE:	Pauses playing. To release it, press PLAY.
● REC:	Press this button with the PLAY button to start recording. Press this button with the PAUSE button to enter recording pause.
CHANNEL +/–:	Changes the TV channels on the VCR.

Note:

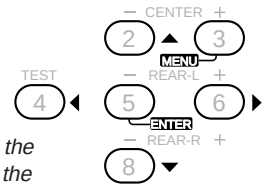
You can use either VCR button or the VCR CONTROL button to activate the buttons listed above. If you press VCR, the playing source also changes. On the other hand, if you press VCR CONTROL, the playing source does not change.

DVD player

After pressing DVD or DVD MULTI (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a DVD player:

PLAY:	Starts playing.
I◄◄:	Returns to the beginning of the current (or previous) track.
►►I:	Skips to the beginning of the next track.
STOP:	Stops playing.
PAUSE:	Stops playing temporarily. To release it, press PLAY.

After pressing DVD or DVD MULTI, these buttons can be used for the DVD menu operations.



Note:

For detailed menu operations, refer to the instructions supplied with the discs or the DVD player.

TV

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

TV/CATV/DBS ⏻/I:	Turns on or off the TV.
TV VOL +/–:	Adjusts the volume.
TV/VIDEO:	Sets the input mode (either TV or VIDEO).

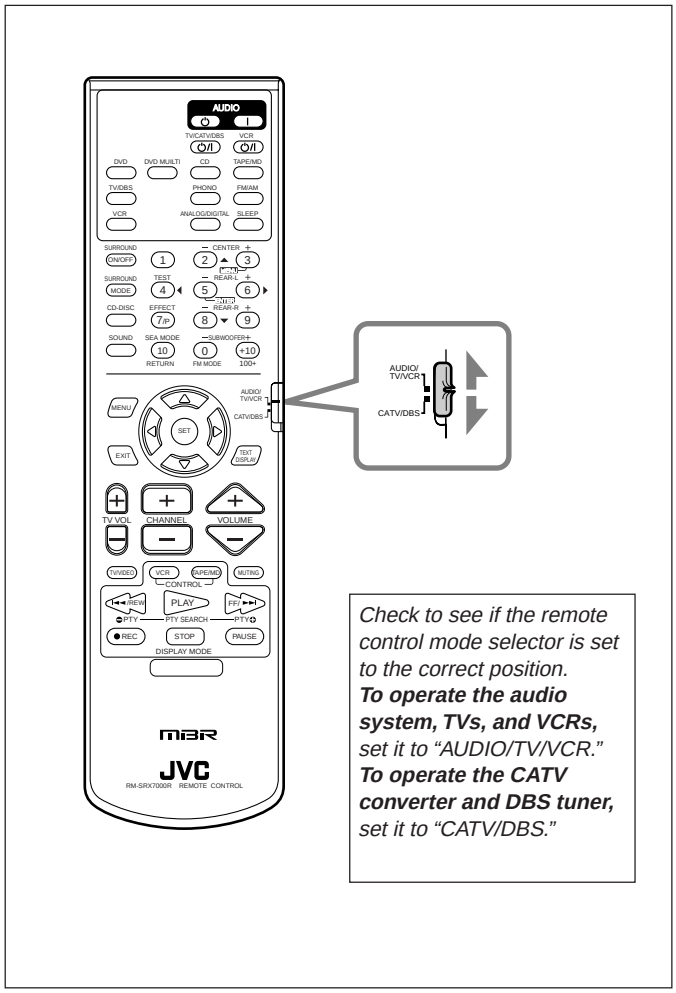
After pressing TV/DBS (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a TV:

CHANNEL +/–:	Changes the channels.
1 – 9, 0, 100+:	Selects the channels.
RETURN:	Alternates between the previously selected channel and the current channel.

Operating Other Manufacturers' Video Equipment —

This remote control supplied with the receiver can transmit control signals for other manufacturers' VCRs, TVs, CATV converters and DBS tuners. By changing the transmittable signals from preset ones to the other manufacturers', you can operate the other manufacturer's components using this remote control.

When operating the other manufacturers' components, refer also to the manuals supplied with them. To operate these components with the remote control, first you need to set the manufacturer's code each for VCR, TV, CATV converters and DBS tuners.



Check to see if the remote control mode selector is set to the correct position.
To operate the audio system, TVs, and VCRs, *set it to "AUDIO/TV/VCR."*
To operate the CATV converter and DBS tuner, *set it to "CATV/DBS."*

To change the transmittable signals for operating another manufacturer's TV

1. **Set the remote control mode to "AUDIO/TV/VCR."**
2. **Press and hold TV/CATV/DBS ⏻/I.**
3. **Press TV/DBS.**
4. **Enter manufacturer's code (three digits) using buttons 1 – 9, and 0.**
   See the list on pages 50 and 51 to find the code.

   Examples: For a JVC product, press 0, 3, then 6.
   For a Hitachi product, press 0, 3, then 2.
5. **Release TV/CATV/DBS ⏻/I.**
   The following buttons can be used for operating the TV (with the remote control mode selector set to "AUDIO/TV/VCR"):

TV/CATV/DBS ⏻/I:	Turns on and off the TV.
TV VOL +/–:	Adjusts the volume.
TV/VIDEO:	Sets the input mode (either TV or VIDEO).

   After pressing TV/DBS (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a TV:

CHANNEL +/–:	Changes the channels.
1 – 10, 0, 100+ (+10):	Selects the channels. The 100+ (+10) button will function as the ENTER button if your TV requires pressing ENTER after selecting a channel number.

   Note:
   Refer to the manual supplied with your TV.
6. **Try to operate your TV by pressing TV/CATV/DBS ⏻/I.**
   When your TV turns on or off, you have entered the correct code.
   If there are more than one code listed for your brand of TV, try each one until the correct one is entered.

To change the transmittable signals for operating a CATV converter or a DBS tuner

1. **Set the remote control mode to "CATV/DBS."**
2. **Press and hold TV/CATV/DBS ⏻/I.**
3. **Press TV/DBS.**
4. **Enter manufacturer's code (three digits) using buttons 1 – 9, and 0.**
   See the list on pages 51 and 52 to find the code.

   Examples: For a British Telecom product, press 0, 0, then 3.
   For a Zenith product, press 0, 0, then 0.
5. **Release TV/CATV/DBS ⏻/I.**
   After setting the remote control mode selector to "CATV/DBS," you can perform the following operations on the CATV convertor or on the DBS tuner:

TV/CATV/DBS ⏻/I:	Turns on and off the CATV converter or the DBS tuner.
CHANNEL +/–:	Changes the channels.
1 – 10, 0, 100+ (+10):	Selects the channels. The 100+ (+10) button will function as the ENTER button if your equipment requires pressing ENTER after selecting a channel number.

   Note:

   Refer to the manual supplied with your CATV converter or DBS tuner.
6. **Try to operate your CATV converter or DBS tuner by pressing TV/CATV/DBS ⏻/I.**
   When your CATV converter or DBS tuner turns on or off, you have entered the correct code.
   If there are more than one code listed for your brand of CATV converter or DBS tuner, try each one until the correct one is entered.

To change the transmittable signals for operating another manufacturer's VCR

1. **Set the remote control mode to "AUDIO/TV/VCR."**
2. **Press and hold VCR ⏻/I.**
3. **Press VCR.**
4. **Enter manufacturer's code (three digits) using buttons 1 – 9, and 0.**
   See the list on pages 52 and 53 to find the code.

   Examples: For a JVC product, press 0, 0, then 8.
   For an NEC product, press 0, 3, then 8.
5. **Release VCR ⏻/I.**
   The following button can be used for operating the VCR (with the remote control mode selector set to "AUDIO/TV/VCR"):

   VCR ⏻/I: Turns on and off the VCR.

   After pressing VCR or VCR CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the VCR:

   CHANNEL +/–: Changes the TV channels on the VCR.

1 – 10, 0, 100+ (+10):	Selects the TV channels. The 100+ (+10) button will function as the ENTER button if your VCR requires pressing ENTER after selecting a channel number.
PLAY:	Starts playback.
◄◄:	Rewinds a video tape.
►►:	Fast winds a video tape.
STOP:	Stops operation.
PAUSE:	Pauses.
● REC:	Starts recording or enters recording pause.

   Notes:

   - *Refer to the manual supplied with your VCR.*
   - *You can use either VCR button or the VCR CONTROL button to activate the buttons listed above. If you press VCR, the playing source also changes. On the other hand, if you press VCR CONTROL, the playing source does not change.*
6. **Try to operate your VCR by pressing VCR ⏻/I.**
   When your VCR turns on or off, you have entered the correct code.
   If there are more than one code listed for your brand of VCR, try each one until the correct one is entered.

Manufacturers' codes for TV

Acura	009
Admiral	087, 163, 213
Adyson	032, 217
AGB	516
Akai	208, 361, 516
Akura	218, 264, 369
Alba	009, 036, 037, 211, 218, 235, 371
Allorgan	294
Amplivision	217, 400
Amstrad	009, 037, 171, 177, 354, 362, 369, 371, 412, 433, 516
Anitech	009, 068, 076
Arcam	216, 217
ASA	087
Asberg	076
Asuka	218
Atlantic	206
Audiosonic	037, 109
Autovox	076, 087, 206, 336
Baird	343, 557
Bang & Olufsen	087
Barco	380
Basic Line	009, 218
Baur	010, 037, 349, 361, 505, 512, 535, 554
Beko	370, 486
Beon	037
Binatone	217
Blaupunkt	191, 195, 200, 213, 327, 328, 535, 554
Blue Sky	218
Blue Star	282
Bondstec	247
Boots	217
BPL	282
Brandt	109, 196, 198, 205, 333, 335
Brionvega	087, 362
Britannia	216
Bruns	087
BSR	294
BTC	218
Bush	009, 036, 037, 211, 218, 282, 294, 349, 355, 371, 374, 519
Carrefour	036
Cascade	009
Cathay	037
Centurion	037
Century	087, 213
CGE	074, 076, 084, 247, 306
Cimline	009
Clarivox	037
Clatronic	076, 247, 370
Clayton	385
Condor	320, 370
Contec	009, 036, 216
Continental Edison	196, 198, 205, 333, 399
Crosley	074, 076, 084, 087, 213
Crown	009, 037, 076, 370, 418, 579
Crystal	431
CS Electrinics	216
CTC	247
Cybertron	218
Daewoo	009, 037, 374, 499
Dainichi	215, 218
Dansai	037
Dayton	009
De Graaf	208, 227, 548
Decca	037, 072, 249, 516
Dixi	009, 037
Dual	336, 352, 519
Dual Tec	217
Dumont	070, 087
Elbe	259
Elin	037, 548
Elite	218, 320
Elta	009
Emerson	087, 213, 361
Erres	012, 037
Europhon	516
Expert	206
Ferguson	005, 037, 073, 109, 190, 238, 287, 335, 343
Fidelity	216, 361, 372
Finlandia	208, 346, 359
Finlux	037, 070, 072, 087, 105, 179, 346, 411, 516
Firstline	009, 216, 217, 247, 294, 321
Fisher	208, 217, 303, 370
Flint	455
Formenti	037, 087, 213, 320
Frontech	163, 247, 264, 431, 448
Fujitsu	072, 206
Funai	179, 264, 294, 303
GEC	037, 043, 072, 205, 217, 516, 557
Geloso	009, 213
Genexxa	163, 218
Goldstar	037, 109, 217, 290
Goodmans	036, 037, 072, 179, 217, 235, 257, 317, 343, 371, 374, 499
Gorenje	370
GPM	218
Graetz	163, 361, 557
Granada	037, 072, 146, 201, 208, 217, 339, 359, 516
Grandin	282
Grundig	070, 191, 195, 205, 487, 535, 554
Hanseatic	037, 320, 361, 556
Hantarex	516
Harwood	257
HCM	009, 282, 412
Hinari	009, 036, 037, 179, 218
Hisawa	282, 400, 455
Hitachi	032, 036, 043, 044, 105, 109, 163, 196, 198, 217, 225, 227, 306, 349, 481, 548, 557
Huanyu	216, 374
Hypson	037, 264, 282
ICE	217, 264, 371
ICeS	218
Imperial	074, 076, 084, 247, 370, 418
Indiana	037
Ingelen	163, 557
Inno Hit	072, 516
Interbuy	068
Interfunk	037, 163, 247, 361, 512, 557
Intervision	037, 068, 102, 217, 264
Isukai	218
ITS	371
ITT	163, 361, 548, 557
JVC	036, 053, 094, 190, 192, 371, 800
Kaisui	009, 216, 217, 218, 282
Kapsch	163, 206, 557
Kathrein	556
Kendo	037, 235, 362
Kingsley	216
Kneissel	259, 435
Korpel	037
Korting	087
Koyoda	009
Leyco	037, 072, 264, 294
Liesenk & Tter	037
Lloytron	032
Loewe	075, 087, 512
Luma	206
Luxor	349, 361
M Electronic	009, 037, 068, 105, 109, 163, 217, 287, 346, 374, 480
Magnadyne	087, 102, 247, 516
Magnafon	076, 102, 213, 516
Manesth	217, 235, 264, 320
Marantz	037, 556
Marelli	087
Mark	037
Matsui	009, 011, 035, 036, 037, 072, 177, 208, 211, 217, 235, 294, 354, 355, 371, 443, 487, 516, 579

McMichael	043
Mediator	012, 037
Memorex	009
Memphis	337
Metz	087, 213, 367, 535
Minerva	070, 487, 535, 554
Minoka	369, 412
Mitsubishi	036, 087, 108, 150, 201, 354, 512, 535
Mivar	216, 290, 291, 292, 516
Motion	076
MTC	349, 512
Multitech	009, 076, 102, 216
Neckermann	037, 087, 191, 213, 349, 505, 554, 556
NEI	037, 337, 431
Nesco	179
Nikkai	032, 035, 037, 072, 216, 218, 264, 337
Nobliko	076, 102
Nokia	361, 480, 548
Nordmende	109, 196, 198, 213, 287, 343
Oceanic	163, 215, 361
Onwa	433
Orion	037, 177, 235, 294, 320, 321, 355, 443, 516
Osaki	032, 072, 217, 218, 257, 264, 412
Oso	218
Osume	032, 072, 157
Otake	317
Otto Versand	010, 036, 037, 191, 213, 217, 320, 343, 349, 505, 512, 535, 554, 556
Palladilum	370, 418
Panama	217, 264
Panasonic	100, 126, 163, 213, 214, 226, 250, 340 367, 557
Pathe Cinema	213, 216, 238, 320
Pathe Marconi	196, 198, 205, 333
Pausa	009
Perdio	320
Phase	032
Philco	074, 076, 084, 087, 213, 247
Philips	012, 037, 043, 087, 323, 374, 554, 556
Phoenix	087
Phonola	012, 037, 087
Pioneer	109, 163, 287
Prandoni Prince	516
Profex	009 ,076, 361
Proline	321
Protech	009, 037, 102, 217, 247, 264, 337, 418, 431
Pye	012
Quelle	010, 011, 037, 070, 074, 084, 200, 213, 306, 327, 328, 361, 505, 512, 535, 554
Questa	036
R-Line	037
Radiola	012, 037, 323
Radiomarelli	087, 516
Rank Arena	036
RBM	070, 089
Rediffusion	201, 361
Revox	037
Rex	163, 206, 259, 264
RFT	087
Roadstar	009, 218, 264, 418
Saba	075, 087, 109, 163, 196, 198, 205, 213, 287, 335, 343, 557
Saccs	238
Saikou	257
Saisho	009, 011, 177, 211, 235, 264, 354, 431, 516
Salora	163, 349, 359, 361, 548
Sambers	076, 102, 213, 516
Samsung	009, 037, 090, 217, 264, 290, 370, 488, 556
Sandra	216
Sanyo	011, 036, 072, 146, 157, 208, 213, 339
Schaub Lorenz	361, 557
SBR	012, 037, 043
Schneider	037, 218, 247, 303, 323, 336, 352, 371, 394
SEG	036, 076, 217, 264
SEI	087, 102, 177, 213, 294
Sei-Sinudyne	010, 516
Seleco	163, 206, 259, 362, 411
Sentra	035
Sharp	036, 093
Shorai	294
Siarem	087, 102, 213, 516
Siemens	037, 157, 191, 195, 200, 213, 327, 328, 535, 554
Silver	036
Singer	087
Sinudyne	087, 102, 177, 213, 235, 294
Solavox	032, 163
Sonitron	208
Sonoko	009, 037
Sonolor	163, 208, 215
Sontec	037
Sony	010, 011, 036, 505
Soundwave	037, 418
Standard	009, 217, 218
Stern	163, 206, 259
Sunkai	294, 321, 355
Susumu	218
Sysline	037
Tandy	072, 163, 217, 218
Tashiko	036, 043, 217, 359
Tatung	037, 072, 217, 249, 516
Tec	217, 247
Technema	320
Technics	250
Technol Ace	179
Teleavia	205, 333, 343
Telefunken	005, 074, 084, 101, 109, 213, 262, 306, 335, 343, 471, 498, 625
Telemeister	320
Teletech	009
Teleton	206, 217, 349
Tensai	218, 294, 317, 320
Texet	216, 218
Thomson	109, 196, 198, 205, 287, 333, 343, 349, 399
Thorn	035, 037, 072, 074, 084, 190, 192, 343, 361, 499, 505, 512, 535, 553
Tomashi	282
Toshiba	035, 036, 070, 089, 243, 508, 553
Triumph	177, 243, 516
Uher	206, 303, 320
Ultra	192
Ultravox	102
Universum	037, 105, 264, 346, 370, 421, 492, 535
Vestel	037
Videosat	247
Videotechnic	217
Vision	320
Voxson	087, 163
Waltham	217
Watson	037, 320
Watt Radio	102
Wega	036, 087
White Westinghouse	037, 216, 320
Yoko	037, 217, 264, 431
Zanussi	206

Manufacturers' codes for DBS tuner

Akai	515
Alba	362, 421, 455, 515, 613
Aldes	288
Amstrad	080, 252, 345, 461, 501, 509, 689
Ankaro	220, 288, 369, 519
Anttron	183, 421
Armstrong	243
AST	351
Astra	108
Astro	173, 501, 520
Avalon	396
Axis	369, 530
BT	515, 668

Beko	189
Best	369
Blaupunkt	173
Boca	243, 513
Brain Wave	332
Bush	067, 522
Cambridge	344, 515
Channel Master	362
CNT	520
Commlink	288
Connexions	396
Conrad	607
Crown	243
Cyrus	200
DDC	362
DNT	200, 396
Echostar	396, 713
Emanon	421
Ferguson	067, 183, 189, 336
Fidelity	252
Finlux	108, 344, 397, 455
Freecom	421
Fuba	369, 396, 421
G-Sat	183
Galaxis	288
Gooding	571
Goodmans	189
Grundig	173, 189, 328, 571, 750
Hinari	183
Hirschmann	173, 397, 501, 502, 573
Hitachi	455
Houston	668
Huth	220, 243, 288, 346
IRTE	609
Intervision	592
ITT	108
Johansson	332
JVC	515, 571
Kathrein	092, 173, 200, 442, 504, 622, 658
Kreiselmeyer	173
Kyostar	421
La Sat	513, 520, 607
Lenco	421
Lennox	592
Lupus	369
Luxor	108, 573
Manhattan	455, 520, 592
Marantz	200
Maspro	092, 328, 336, 750
Matsui	344, 571
Mediamarkt	243
Minerva	571
Mintec	578
Morgan's	243, 513
Navex	332
Neuhaus	501
Newhaus	220
Nikko	360, 713
Nokia	108, 328, 397, 455, 573
Nordmende	362
Orbitech	501
Orion	522
Oxford	344
Pace	067, 183, 328, 336, 455, 795
Palladium	571
Palsat	501
Panda	455
Philips	200, 292, 328, 455, 571, 750
Phonotrend	288, 592
Promax	455
Prosat	288
Quadral	362, 519, 628
Radiola	200
Radix	396
RFT	200, 220, 288
Saba	336, 520
Sabre	455
Salora	108
SAT	351, 461
Satcom	346, 605
Satec	183, 328
Satmaster	346
SatPartner	332, 421, 502, 520
Schwaiger	183, 504
Seemann	396, 530, 578, 626
SEG	369, 421
Siemens	173
Skymaster	288, 519, 605, 628
SM Electronic	713
Sony	704
Sunstar	513
Tantec	336, 455
TechniSat	501
Techniland	346
Telefunken	421
Teleka	243, 613
Telesat	605
Thomson	455
Tonna	346, 668
Triad	351
Triasat	501
Unitor	332
Universum	173, 571
Ventana	200
Vortec	421
Vtech	351
Winersat	332
Wisi	173, 351, 396, 455
Zehnder	520

Manufacturers' codes for CATV converters

Brigminghan Cable Communications	276
British Telecom	003, 105
Decsat	423
Filmnet	443
France Telecom	451
Jerrold	003, 276
MNet	443
PVP Stereo Visual Matrix	003
Salora	382
Scientific Atlanta	008, 277
Tele+1	443
United Cable	003
Westminster	105
Zenith	000

Manufacturers' codes for VCR

Aiwa	000, 307, 348, 352
Akai	041, 049, 053, 106, 281, 288, 315
Akiba	072
Akura	271
Alba	020, 072, 209, 278, 295, 315, 333, 334, 352
Ambassador	020
Amstrad	000, 278, 325, 332
Anitech	072
ASA	037, 081
Asuka	037
Baird	000, 041, 104, 107
Basic Line	020, 072, 278
Blaupunkt	003, 006, 016, 034, 154, 162, 195, 226, 227, 403
Brandt	187, 320, 321
Brandt Electronic	041
Brionvega	344
Bush	072, 209, 278, 333, 334, 352
Catron	020
CGE	000
Cimline	072
Clatronic	020
Combitech	352

Condor	020
Crown	020, 072, 278
Cyrus	081
Daewoo	020, 278
Dansai	072
De Graaf	042, 166
Decca	000, 081
Denon	042
Dual	041
Dumont	000, 081, 104, 105
Elbe	038
Elcatech	072
ESC	240, 278
Ferguson	041, 084, 098, 107, 320, 321
Fidelity	000
Finlandia	081, 104
Finlux	000, 042, 081, 104, 105
Firstline	037, 043, 045, 072, 209
Fisher	046, 047, 054, 104
Frontech	020
Funai	000
GEC	081
General	020
GoldHand	072
GoldStar	037, 225
Goodmans	000, 020, 037, 072, 278, 403
Graetz	005, 041, 104, 240, 344
Granada	046, 081, 104
Grandin	000, 037, 072
Grundig	003, 006, 007, 016, 072, 081, 195, 207, 226, 347, 349, 403
Hanseatic	037
HCM	072
Hinari	004, 072, 208, 240, 352
Hitachi	000, 004, 041, 042, 105, 166, 235, 240
Hypson	072
Imperial	000
Ingersol	004
Interfunk	081
ITT	005, 041, 046, 104, 106, 240, 344, 384
ITV	037, 278
JVC	008, 041, 067, 084, 206, 207, 384, 486
Kaisui	072
Kendo	106, 209
Kenwood	041
Korpel	072
Lenco	278
Leyco	072
Loewe	004, 006, 037, 081
Logik	004, 240
Luxor	043, 046, 048, 104, 106
M Electronic	000
Manesth	045, 072
Marantz	003, 006, 081, 295
Matsui	004, 036, 088, 208, 209, 295, 348, 352
Melectronic	038
Memorex	000, 037, 046, 104
Memphis	072
Metz	003, 006, 037, 162, 195, 227, 347
Minerva	006, 016, 195
Mitsubishi	043, 067, 081
Multitech	000, 072
Murphy	000
NEC	038, 041, 067
Neckermann	081, 344
Nesco	072
Nokia	041, 046, 104, 106, 240, 344
Nordmende	041, 297, 320, 321, 384
Oceanic	000, 041
Okano	315, 348
Orion	004, 036, 088, 208, 209, 295, 333, 334, 348, 352
Osaki	000, 037, 072
Otto Versand	081
Palladium	006, 037, 041, 072
Panasonic	162, 226, 227
Pathe Cinema	036
Pathe Marconi	041
Pentax	042, 105
Perdio	000
Philco	038
Philips	081, 384, 403
Phonola	081
Pioneer	067, 081, 235
Portland	020
Profex	322
Profitronic	240
Proline	000
Pye	081
Quartz	046
Quelle	081, 344
Radiola	081
Rex	041, 384
RFT	403
Roadstar	037, 072, 240, 278
Saba	041, 206, 207, 297, 320, 321, 384
Saisho	004, 036, 088, 208, 209
Salora	043, 046, 106
Samsung	240, 432
Sansui	041, 067, 271
Sanyo	046, 104
Saville	352
SBR	081
Schaub Lorenz	000, 005, 041, 104, 344
Schneider	000, 072, 081
SEG	240, 322
SEI	004, 081
Seleco	041
Sentra	020
Sharp	048
Shintom	072, 104
Shorai	004
Siemens	003, 006, 016, 037, 054, 081, 104, 195
Silva	037
Singer	045
Sinudyne	004, 081
Solavox	020
Sonolor	046
Sontec	037
Sony	011, 032, 033, 034
Sunkai	348
Sunstar	000
Suntronic	000
Tashiko	000
Tatung	000, 041, 081
Tec	020
Technics	162, 226
Teleavia	041
Telefunken	041, 187, 320, 321, 384
Tenosal	072
Tensai	000, 322
Thomson	041, 320, 384
Thorn	036, 041, 084, 104
Toshiba	041, 043, 045, 081, 384
Towada	322
Triumph	208
Uher	240, 344
Ultravox	049, 344
Universum	000, 006, 016, 037, 049, 081, 106, 195, 240, 325
White Westinghouse	344
Yamishi	072
Yokan	072
Yoko	020, 240

Manufacturers' codes listed on pages 50 to 53 are subject to change without notice. If they are changed, this remote control cannot operate the equipment.

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 display does not light up.	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.
	The SPEAKERS 1 and 2 buttons are not set correctly.	Press SPEAKERS 1 and 2 correctly.
	An incorrect source is selected.	Select the correct source.
	Muting is activated.	Press MUTING to cancel the mute.
Sound from one speaker only.	Speaker signal cables are not connected properly.	Check speaker wiring and reconnect if necessary.
	The balance is set to one extreme.	Adjust the balance properly (see page 13).
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 the 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.
No colors on the on-screen display.	The color system of the connected TV is not PAL.	Connect PAL- or multi-color system TV.
Howling during record playing.	Your turntable is too close to speakers.	Move speakers away from the turntable.
"OVERLOAD" starts flashing on the display.	Speakers are overloaded because of high volume.	1. Press STANDBY/ON ⏻/I 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 STANDBY/ON ⏻/I on the front panel, 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.
Remote control does not work.	The remote control mode selector is not set correctly.	Set the selector correctly either to "AUDIO/ TV/VCR" or to "CATV/DBS."
	There is an obstruction in front of the remote sensor on the receiver.	Remove the obstruction.
	Batteries are weak.	Replace batteries.

English

Specifications

Amplifier

Output Power

At Stereo operation:

Front channels: 100 W per channel, min. RMS, both channels driven into 4 Ω, at 1 kHz with no more than 0.9% total harmonic distortion. (IEC268-3/DIN)

At Surround operation:

Front channels: 100 W per channel, min. RMS, driven into 4 Ω at 1 kHz, with no more than 0.8% total harmonic distortion.

Center channel: 100 W, min. RMS, driven into 4 Ω at 1 kHz, with no more than 0.8% total harmonic distortion.

Rear channels: 100 W per channel, min. RMS, driven into 4 Ω at 1 kHz, with no more than 0.8% total harmonic distortion.

Total Harmonic Distortion (8 Ω): 0.02% at 50 W output (at 1 kHz)

Audio

Audio Input Sensitivity/Impedance (1 kHz):	PHONO (MM):	2.5 mV/47 kΩ
	CD, TAPE/MD, TV SOUND/DBS, VCR, DVD:	200 mV/47 kΩ
Audio Input (DIGITAL IN)* :	Coaxial: DIGITAL 1 (DVD):	0.5 V(p-p)/75 Ω
	Optical: DIGITAL 2 (CD), DIGITAL 3 (TV):	–21 dBm to –15 dBm (660 nm ±30 nm)

* Corresponding to Linear PCM, Dolby Digital, DTS Digital Surround and MPEG Multichannel (with sampling frequency — 32 kHz, 44.1 kHz, 48 kHz).

Audio Output Level:	TAPE/MD, VCR:	200 mV
Digital output:	Optical: DIGITAL OUTPUT	
	Signal wave length:	660 nm
	Output level:	–21 dBm to –15 dBm
Signal-to-Noise Ratio ('66 IHF/DIN):	PHONO:	70 dB/66 dB (at REC OUT)
	CD, TAPE/MD, TV SOUND/DBS, VCR, DVD:	87 dB/67 dB
Frequency Response (8 Ω):	PHONO:	20 Hz to 20 kHz (±1 dB)
	CD, TAPE/MD, TV SOUND/DBS, VCR, DVD:	20 Hz to 20 kHz (±1 dB)
RIAA Phono Equalization:	±1.0 dB (20 Hz to 20 kHz)	
Bass Boost:	+6 dB ±1.0 dB at 100 Hz (Volume Control at –30 dB)	
SEA:	Center frequencies:	100 Hz, 1 kHz, 10 kHz
	Control range:	±10 dB ±2 dB

Video

Video Input Sensitivity/Impedance:		
Composite video:	TV SOUND/DBS, VCR, DVD:	1 V(p-p)/75 Ω
S-video:	TV SOUND/DBS, VCR, DVD: (Y: luminance):	1 V(p-p)/75 Ω
	(C: chrominance, burst):	0.286 V(p-p)/75 Ω
Video Output Level:		
Composite video:	VCR, MONITOR OUT:	1 V(p-p)/75 Ω
S-video:	VCR, MONITOR OUT: (Y: luminance):	1 V(p-p)/75 Ω
	(C: chrominance, burst):	0.286 V(p-p)/75 Ω
Synchronization:	Negative	
Signal-to-Noise Ratio:	45 dB	
On-Screen Color System:	PAL	

FM tuner (IHF)

Tuning Range:	87.50 MHz to 108.00 MHz	
Usable Sensitivity:	Monaural:	17.0 dBf (1.95 µV/75 Ω)
50 dB Quieting Sensitivity:	Monaural: Stereo:	21.3 dBf (3.2 µV/75 Ω) 41.3 dBf (31.5 µV/75 Ω)
Signal-to-Noise Ratio (IHF-A weighted):	Monaural: Stereo:	78 dB at 85 dBf 73 dB at 85 dBf
Total Harmonic Distortion:	Monaural: Stereo:	0.4% at 1 kHz 0.6% at 1 kHz
Stereo Separation at REC OUT:	35 dB at 1 kHz	
Alternate Channel Selectivity:	60 dB: (±400 kHz)	
Frequency Response:	30 Hz to 15 kHz: (+0.5 dB, –3 dB)	

AM (MW/LW) tuner

Tuning Range:	MW: LW:	522 kHz to 1 629 kHz 144 kHz to 288 kHz
Usable Sensitivity:	Loop antenna:	400 µV/m
Signal-to-Noise Ratio:		50 dB (100 mV/m)

General

Power Requirements:	AC 230 V ∿, 50 Hz
Power Consumption:	210 W (at operation) 2 W (in standby mode)
Dimensions (W x H x D):	435 mm x 157 mm x 412.5 mm (17 3/16 in. x 6 3/16 in. x 16 1/4 in.)
Mass:	11.3 kg (25.0 lbs)

Designs & specifications are subject to change without notice.

JVC

VICTOR COMPANY OF JAPAN, LIMITED