

TA-E741

SERVICE MANUAL

US Model



TA-E741 is the amplifier section in STU-741.

SPECIFICATIONS

Amplifier section

Harmonic distortion (Front)

Less than 0.02% (at 1 kHz, 180 mV, Surround off)

Frequency response (Surround off)

PHONO: RIAA equalization curve ± 1.0 dB
TUNER, CD, TAPE, VIDEO 1/MD, VIDEO 2, 3, 4: 20 Hz - 70 kHz ± 1.5 dB

Video section

Video input/output

Permissible signal input level

VIDEO 1/MD, VIDEO 2, 3, 4: 1.5 Vp-p

Output signal level

VIDEO 1/MD, VIDEO 2, MONITOR: 1.5 Vp-p (with 1 Vp-p input, measured at MONITOR OUT)

Impedance (output)

75-ohm unbalanced, negative sync.

Audio section

Input

Input jack	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	3.0 mV	50 kilohms
TUNER, TAPE, VIDEO 2, 3, 4	Phono	250 mV	50 kilohms
CD, VIDEO 1/MD	Phono	350 mV	50 kilohms

Output

Output jack	Jack type	Sensitivity	Impedance
TAPE, VIDEO 1/MD, VIDEO 2	Phono	250 mV	470 ohms
FRONT, REAR, CENTER WOOFER	Phono	180 mV	1 kilohms

EQ

63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Boost and cut ± 10 dB

General

Power requirements

120 V AC, 60 Hz

Power consumption

18 W

AC outlets

4 switched, 480 W/4A max.

Dimensions

Approx. 430 x 105 x 295 mm (w/h/d)
(17 x 4¹/₄ x 11⁵/₈ inches)

(including projecting parts and controls.)

Mass

Approx. 3.5 kg (7 lb 12 oz)

Accessories supplied with the tuner and amplifier

CONTROL S cord (1)

Audio connecting cord (4)

AM loop antenna (1)

FM wire antenna (1)

System control cord (1)

Remote commander (1)

Sony batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

AV CONTROL AMPLIFIER
SONY®

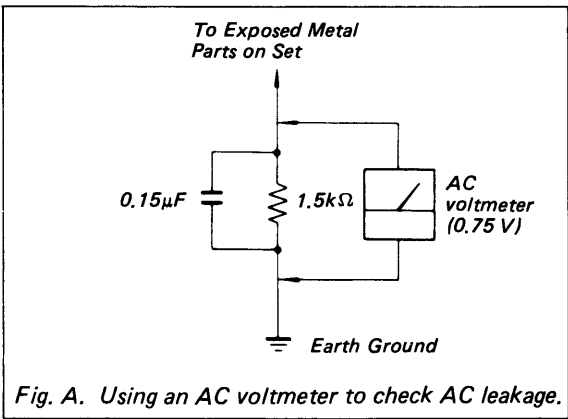
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

- 1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
- 2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



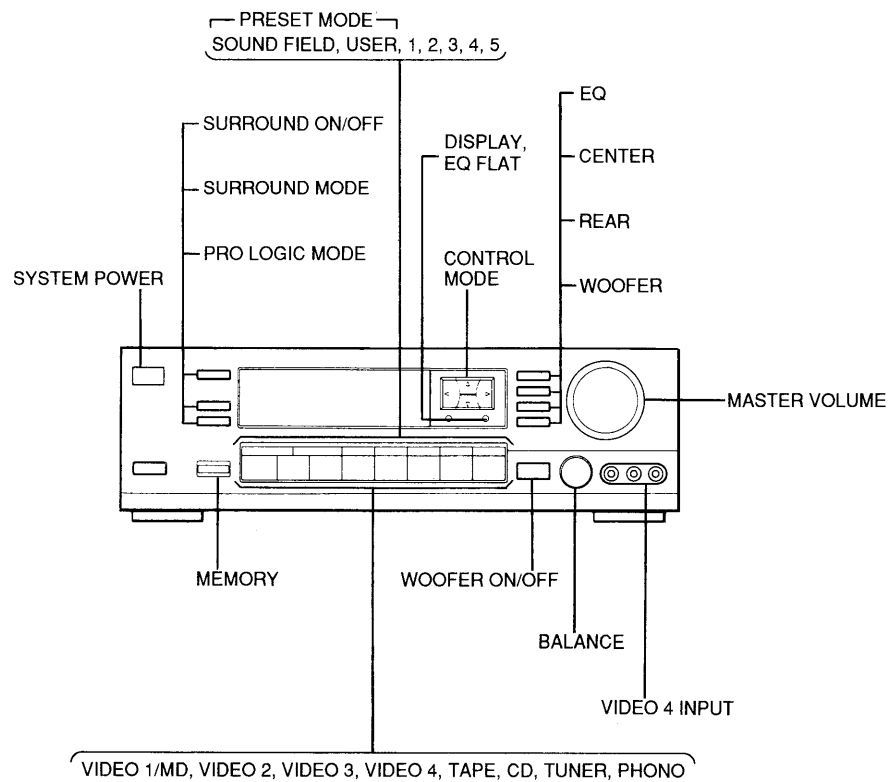
SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1 GENERAL

Location of Controls



SECTION 2 DIAGRAMS

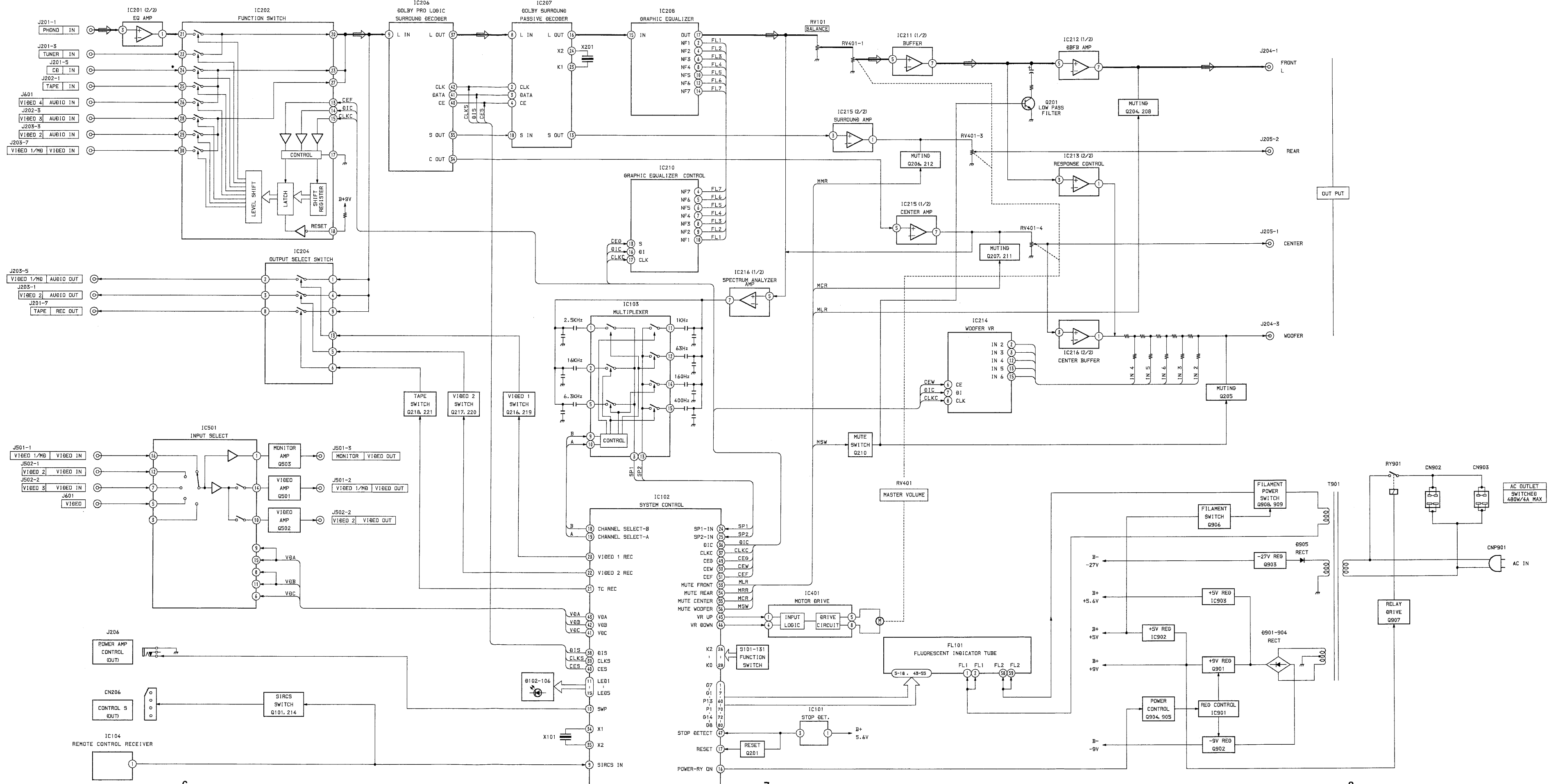
2-1. IC PIN FUNCTION

• IC102 μ PD78042GF (SYSTEM CONTROL)

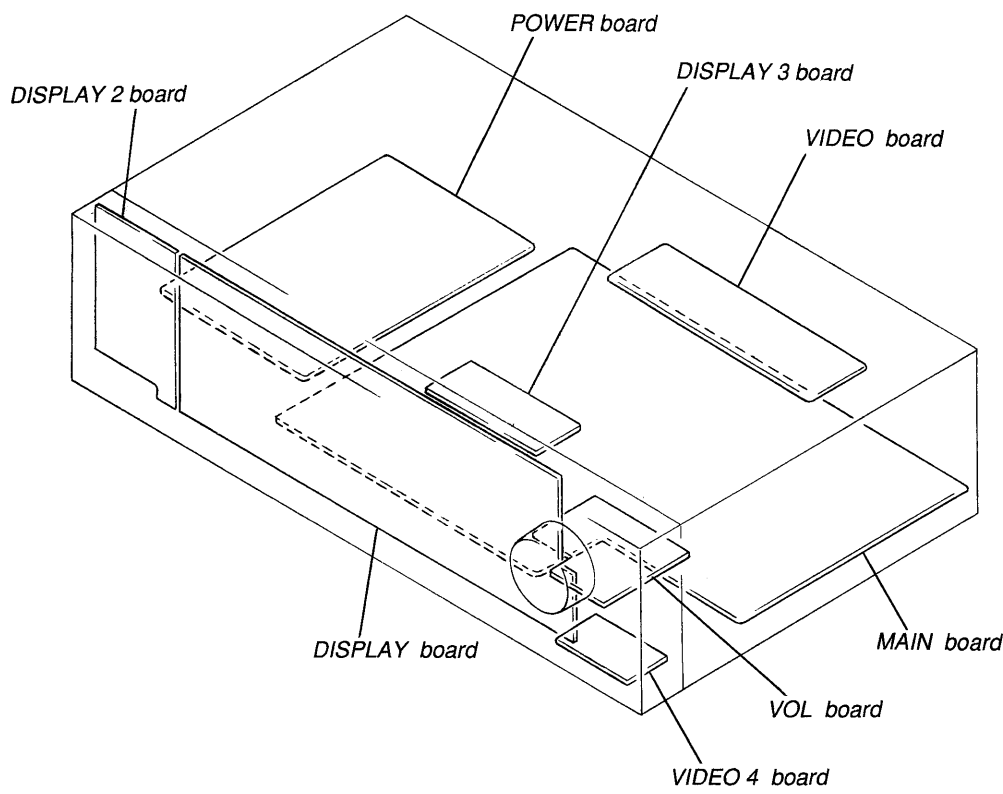
Pin No.	Pin Name	I/O	Description																				
1	G7	O	FL TUBE GRID OUTPUT																				
2	G6	O	FL TUBE GRID OUTPUT																				
3	G5	O	FL TUBE GRID OUTPUT																				
4	G4	O	FL TUBE GRID OUTPUT																				
5	G3	O	FL TUBE GRID OUTPUT																				
6	G2	O	FL TUBE GRID OUTPUT																				
7	G1	O	FL TUBE GRID OUTPUT																				
8	VDD	—	+5V																				
9	RCS	I	SIRCS INPUT																				
10	SWP	O	WOOFER ON/OFF CONTROL “H”: ON																				
11	LED5	O	“EQ” LED ON/OFF CONTROL “H”: ON																				
12	LED4	O	“CENTER” LED ON/OFF CONTROL “H”: ON																				
13	LED3	O	“REAR” LED ON/OFF CONTROL “H”: ON																				
14	LED2	O	“WOOFER” LED ON/OFF CONTROL “H”: ON																				
15	LED1	O	“WOOFER ON/OFF” LED ON/OFF CONTROL “H”: ON																				
16	PS/ON	O	POWER ON/OFF CONTROL “H”: ON																				
17	RESET	I	SYSTEM RESET INPUT																				
18	SSB	O	FILTER CHANNEL SELECT SWITCH																				
19	SSA	O	FILTER CHANNEL SELECT SWITCH																				
20	AVss	—	A/D CONVERTER GND																				
21	TPREC	O	REC OUT SWITCH																				
22	V2REC	O	REC OUT SWITCH																				
23	V1REC	O	REC OUT SWITCH																				
24	SP1	I	SPECTRUM ANALYZER INPUT																				
25	SP2	I	SPECTRUM ANALYZER INPUT																				
26	K2	I	KEY DATA INPUT																				
27	K1	I	KEY DATA INPUT																				
28	K0	I	KEY DATA INPUT																				
29	AVdd	—	A/D CONVERTER +5V																				
30	AVref	I	A/D CONVERTER +5V																				
31	XT1	I	Not Used (GND)																				
32	XT2	—	Not Used																				
33	Vss	—	GND																				
34	X1	I	MAIN SYSTEM CLOCK 4.19 MHz																				
35	X2	—	MAIN SYSTEM CLOCK 4.19 MHz																				
36	DIC	O	SERIAL DATA OUTPUT FOR LC7824, LC7822, NJU7305L																				
37	CLKC	O	SERIAL CLOCK OUTPUT FOR LC7824, LC7822, NJU7305L																				
38	DIS	O	SERIAL DATA OUTPUT FOR LA2785, LV1010																				
39	CLKS	O	SERIAL CLOCK OUTPUT FOR LA2785, LV1010																				
40	CES	O	ENABLE OUTPUT FOR LA2785, LV1010																				
41	VDC	O	VIDEO INPUT SELECT <table><tr><td>VDA</td><td>VDB</td><td>VDC</td><td></td></tr><tr><td>L</td><td>L</td><td>X</td><td>VIDEO 1</td></tr><tr><td>H</td><td>L</td><td>X</td><td>VIDEO 2</td></tr><tr><td>L</td><td>H</td><td>X</td><td>VIDEO 3</td></tr><tr><td>H</td><td>H</td><td>L</td><td>VIDEO 4</td></tr></table>	VDA	VDB	VDC		L	L	X	VIDEO 1	H	L	X	VIDEO 2	L	H	X	VIDEO 3	H	H	L	VIDEO 4
VDA	VDB	VDC																					
L	L	X		VIDEO 1																			
H	L	X		VIDEO 2																			
L	H	X	VIDEO 3																				
H	H	L	VIDEO 4																				
42	VDB	O																					
43	VDA	O																					
44	ABO	O	Not Used																				
45	VR+	O	VOLUME UP OUTPUT																				

Pin No.	Pin Name	I/O	Description
46	VR-	O	VOLUME DOWN OUTPUT
47	STOP	I	POWER CHECK TERMINAL
48	IC	—	Not Used (GND)
49	CEG	O	ENABLE OUTPUT FOR NJU7305L
50	CEW	O	ENABLE OUTPUT FOR LC7824
51	CEF	O	ENABLE OUTPUT FOR LC7822
52	Vdd	—	+5V
53	MLR	O	MUTING FRONT “L”: MUTE
54	MRR	O	MUTING REAR “L”: MUTE
55	MCR	O	MUTING CENTER “L”: MUTE
56	MSW	O	MUTING WOOFER “L”: MUTE
57	—		Not Used
58	—		Not Used
59	—		Not Used
60	P13	O	FL TUBE SEGMENT OUTPUT
61	P12	O	FL TUBE SEGMENT OUTPUT
62	P11	O	FL TUBE SEGMENT OUTPUT
63	P10	O	FL TUBE SEGMENT OUTPUT
64	P9	O	FL TUBE SEGMENT OUTPUT
65	P8	O	FL TUBE SEGMENT OUTPUT
66	P7	O	FL TUBE SEGMENT OUTPUT
67	P6	O	FL TUBE SEGMENT OUTPUT
68	P5	O	FL TUBE SEGMENT OUTPUT
69	P4	O	FL TUBE SEGMENT OUTPUT
70	P3	O	FL TUBE SEGMENT OUTPUT
71	V load	I	FOR FL TUBE -27V
72	P2	O	FL TUBE SEGMENT OUTPUT
73	P1	O	FL TUBE SEGMENT OUTPUT
74	G14	O	FL TUBE GRID OUTPUT
75	G13	O	FL TUBE GRID OUTPUT
76	G12	O	FL TUBE GRID OUTPUT
77	G11	O	FL TUBE GRID OUTPUT
78	G10	O	FL TUBE GRID OUTPUT
79	G9	O	FL TUBE GRID OUTPUT
80	G8	O	FL TUBE GRID OUTPUT

2-2. BLOCK DIAGRAM



2-3. CIRCUIT BOARDS LOCATION



2-4. SEMICONDUCTOR LEAD LAYOUTS

GP1U52XB

1 Vout
2 Vcc
3 GND

PST600E-T

Vcc GND OUT

**2SB1094-LK
2SD2012**

B C E

**DTA124ES
DTC124ES**

E C B

SEL2210S-TH10

long short
anode cathode

M5218AL

1 2 3 4 5 6 7 8

μ PD78042GF-070-3B9

64 41 65 80 1 24 25 40
INDEX
(TOP VIEW)

**2SC2785-HFE
2SC3623A-LK**

LETTER SIDE

E C B

**11ES2
UZL-27H**

cathode
anode

M5F78M05L

IN GND OUT

**2SA733-QP
2SB892-T**

E C B

2SC3330-T

B C E

**1N4148M
UZP-6.2B**

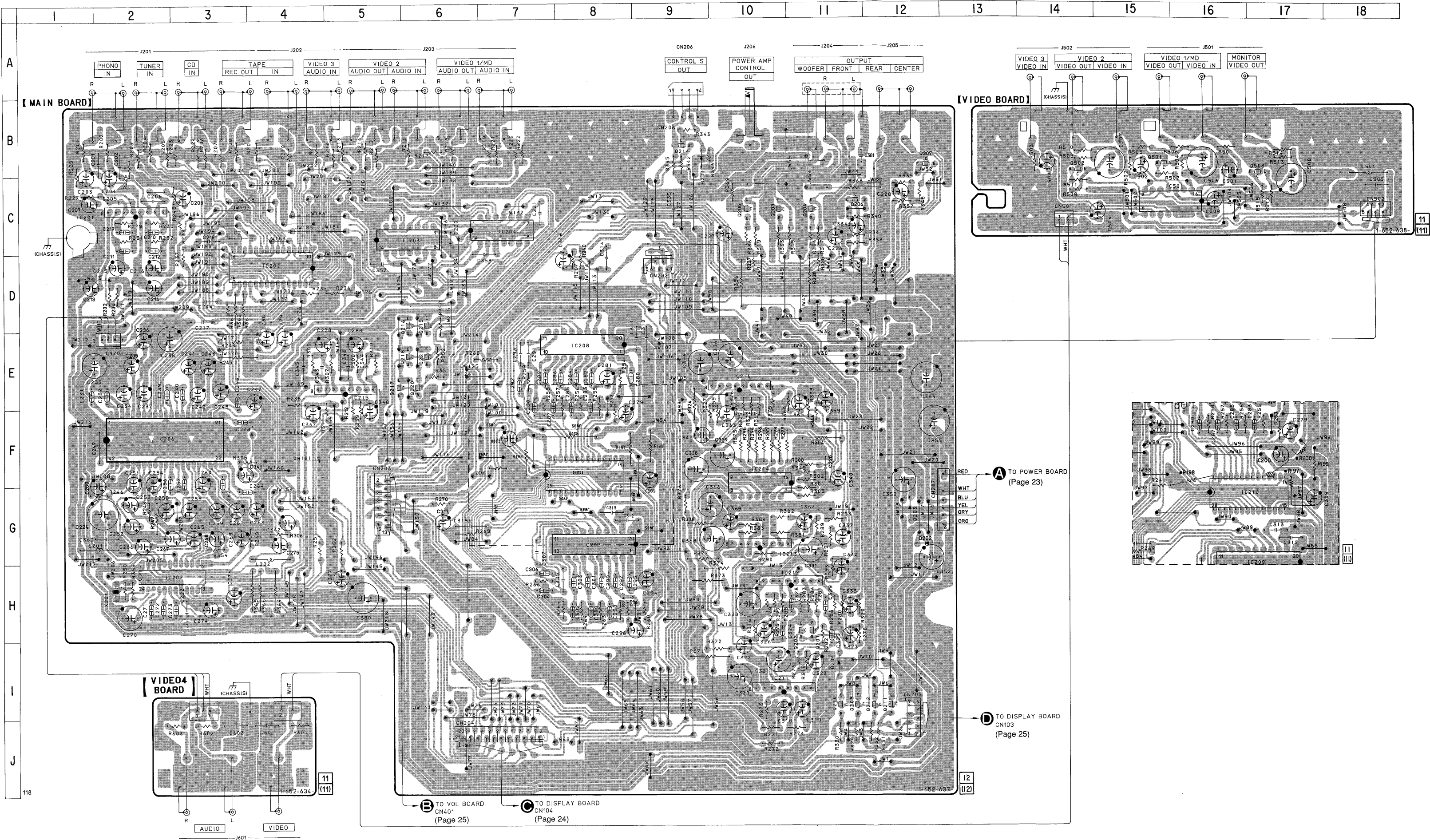
CATHODE
ANODE

2-5. PRINTED WIRING BOARDS — MAIN SECTION —

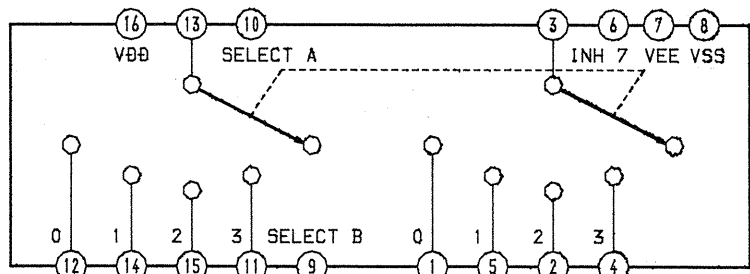
• Semiconductor Location

Ref. No.	Location
D201	B - 9
D202	G - 12
D203	G - 12
D204	I - 11
IC201	C - 2
IC202	D - 4
IC203	C - 6
IC204	C - 7
IC206	F - 2
IC207	H - 2
IC208	E - 8
IC209	G - 8
IC210	F - 8
IC211	I - 10
IC212	H - 11
IC213	G - 10
IC214	F - 10
IC215	E - 5
IC216	E - 10
IC501	C - 16
Q201	H - 11
Q202	H - 11
Q203	C - 10
Q204	C - 11
Q205	C - 10
Q206	C - 11
Q207	B - 12
Q208	I - 11
Q210	I - 11
Q211	I - 12
Q212	I - 12
Q214	B - 9
Q216	D - 6
Q217	E - 5
Q218	E - 6
Q219	D - 6
Q220	E - 6
Q221	E - 6
Q501	B - 15
Q502	B - 14
Q503	B - 17

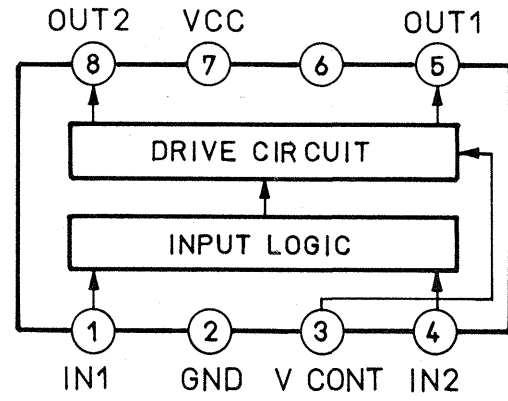
Note:
• : parts extracted from the component side.



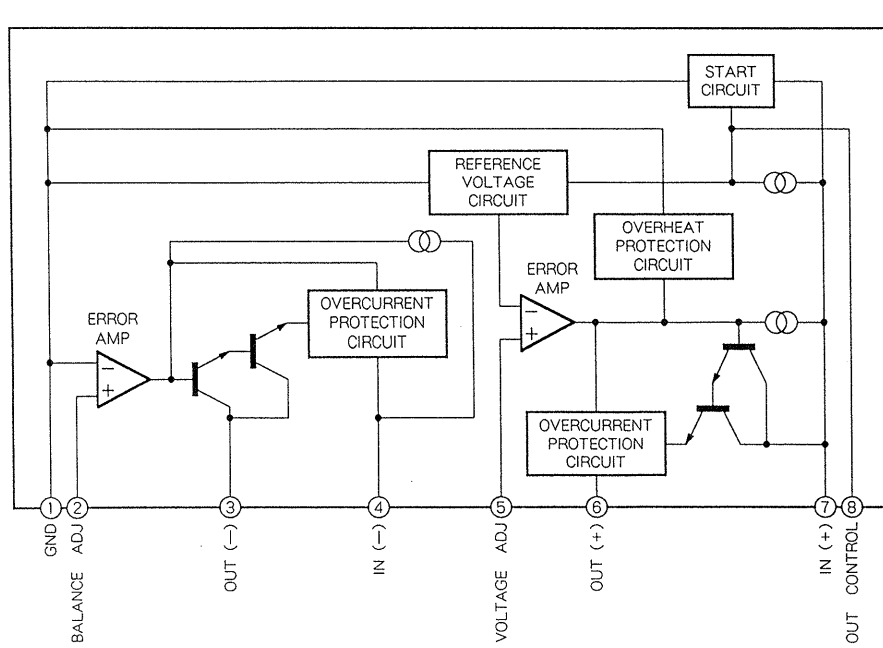
• IC Block Diagrams
IC103 MC14052BCP



IC401 LB1639

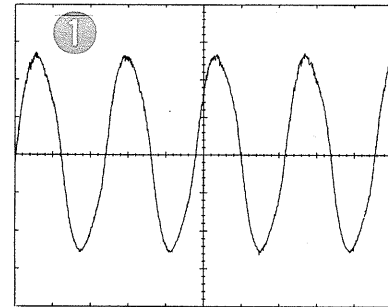


IC901 M5230L-A



2-7. SCHEMATIC DIAGRAM — DISPLAY SECTION —

• Waveform

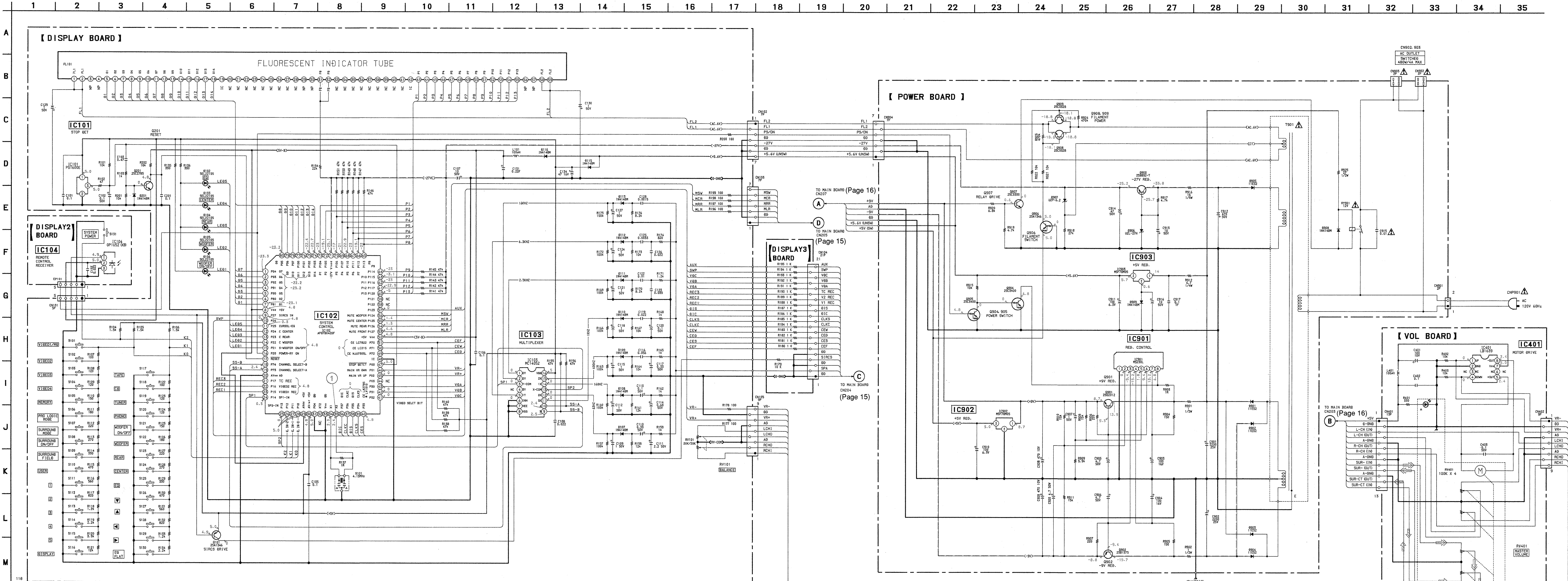


IC102 5.3 Vp-p
4.19 MHz (239 nsec)

- Note:
- All capacitors are in μF unless otherwise noted. pF: μpF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
 - Δ : internal component.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- : B+ Line
- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : SURROUND OFF
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope.
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- $\Rightarrow$: PHONO
- $\Rightarrow$: CENTER
- $\Rightarrow$: WOOFER
- $\Rightarrow$: REAR

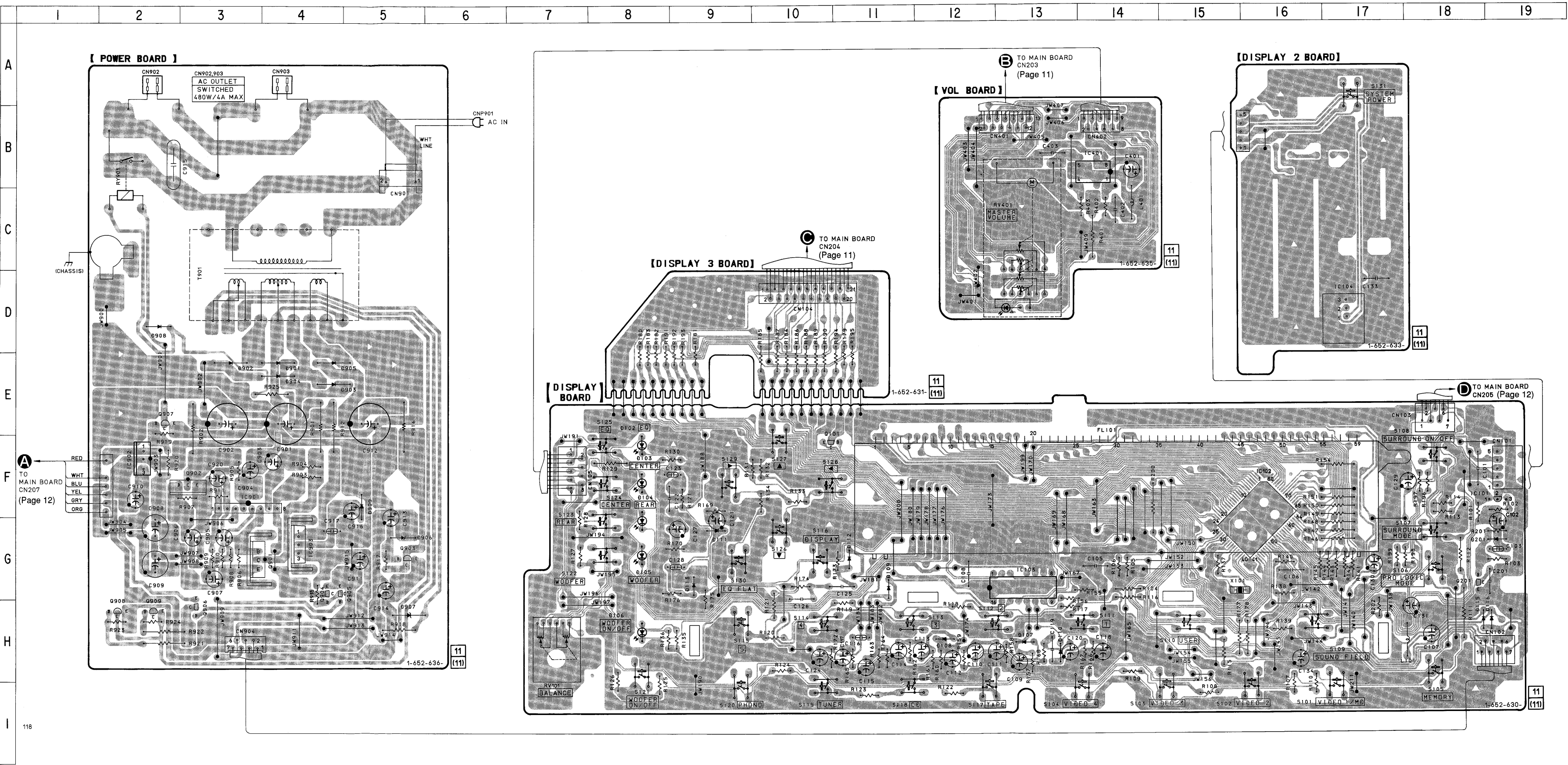


2-8. PRINTED WIRING BOARDS — DISPLAY SECTION —

• Semiconductor Location

Ref. No.	Location
D102	F-8
D103	F-8
D104	G-8
D105	G-8
D106	H-8
D107	H-13
D108	H-12
D109	G-11
D110	H-13
D111	G-9
D112	G-11
D113	G-9
D115	H-19
D116	H-19
D201	G-18
D901	E-4
D902	E-3
D903	E-4
D904	E-4
D905	E-4
D906	G-5
D907	H-5
D908	D-2
D909	F-5
IC101	F-19
IC102	F-16
IC103	G-13
IC104	D-17
IC401	B-14
IC901	F-3
IC902	F-3
IC903	G-4
Q101	F-11
Q201	G-18
Q901	G-3
Q902	F-3
Q903	G-5
Q904	G-4
Q905	G-4
Q906	H-3
Q907	E-2
Q908	H-2
Q909	H-2

Note:
• — : parts extracted from the component side.



SECTION 3

EXPLODED VIEWS

NOTE:

- $-XX$, $-X$ mean standardized parts, so they may have some differences from the original one.

● Color Indication of Appearance Parts
Example:

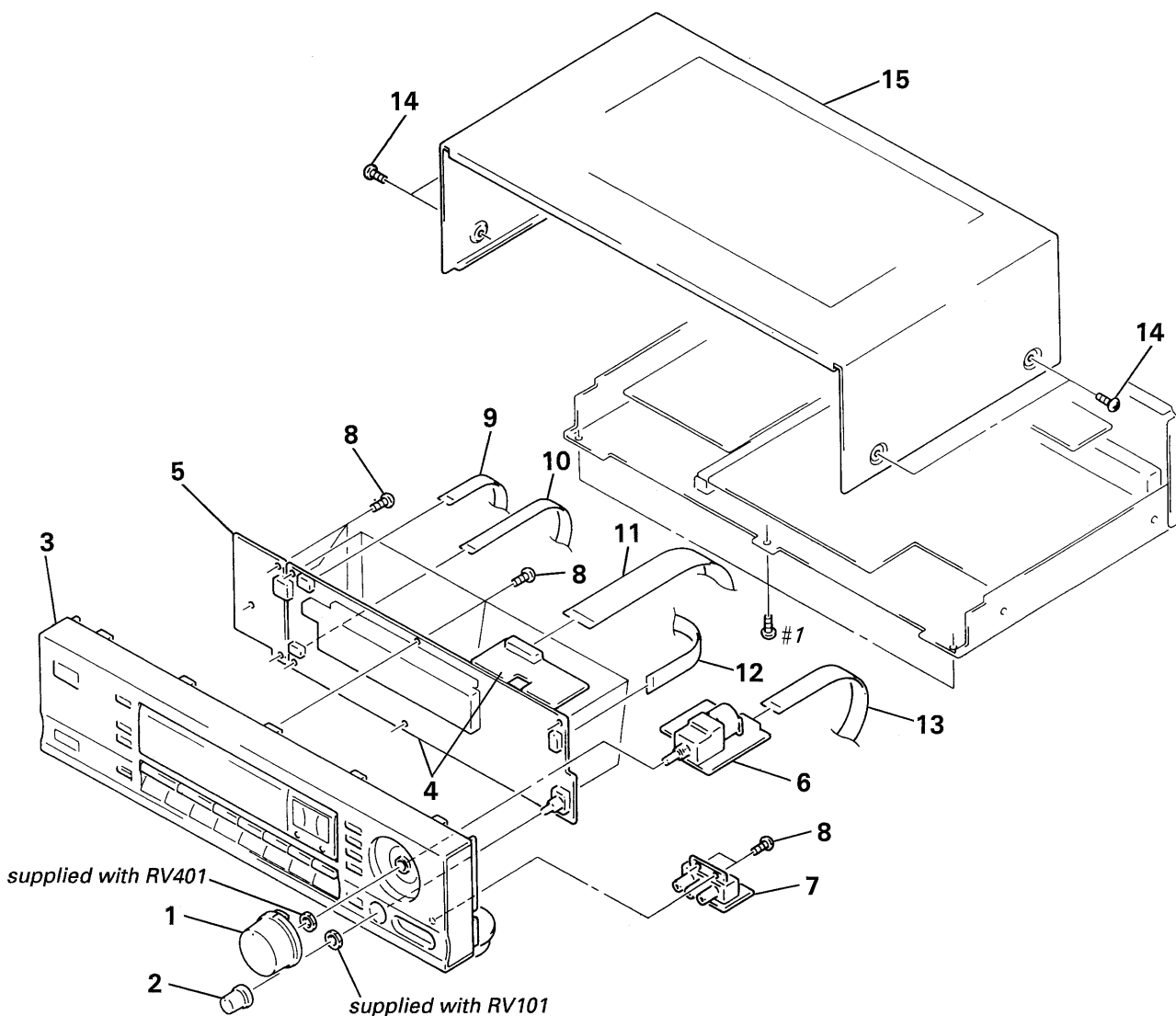
KNOB, BALANCE (WHITE)...(RED)

Parts color Cabinet's color

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

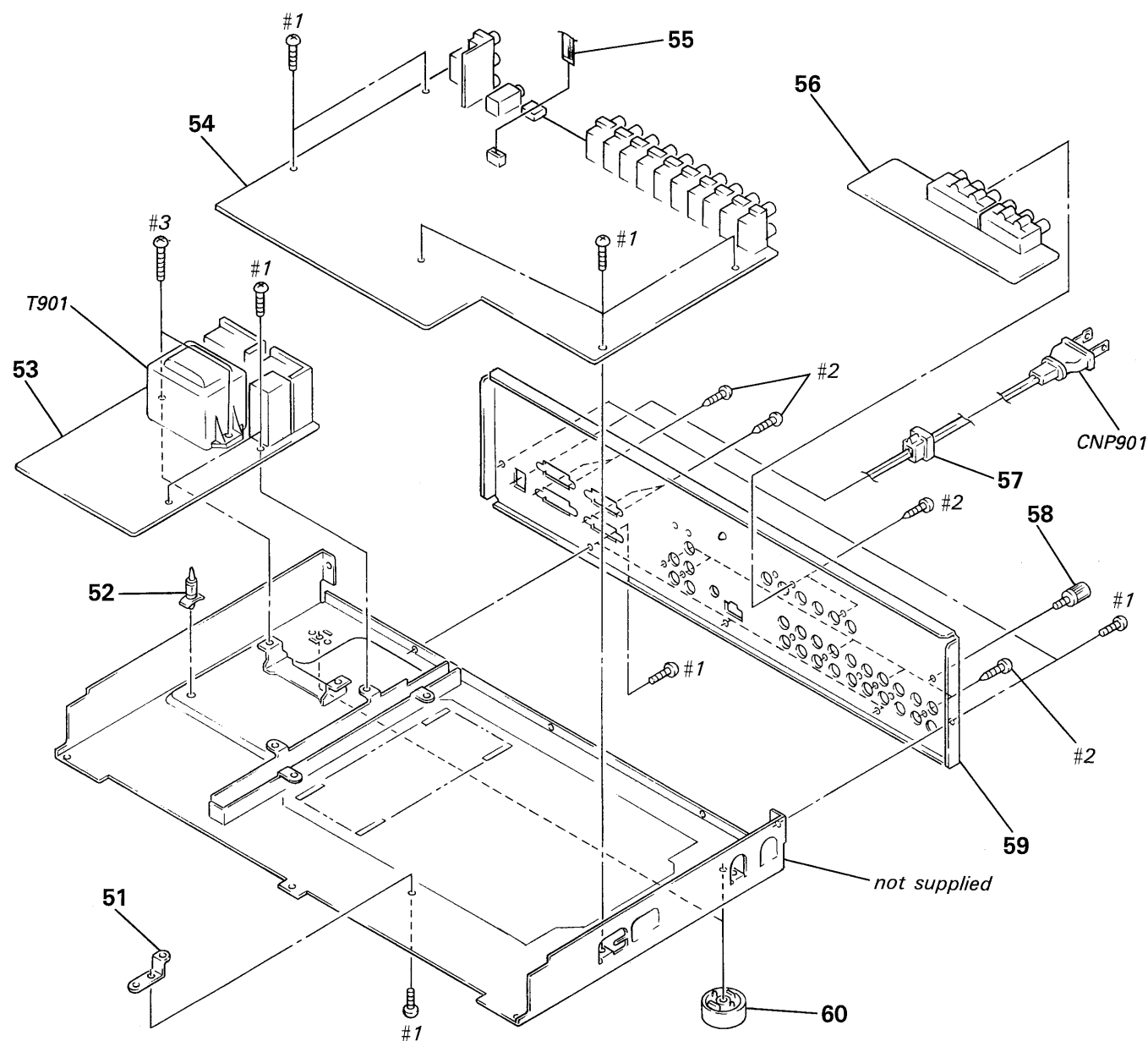
3-1. FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remark
1	X-4942-296-1	KNOB ASSY	
2	4-943-420-11	KNOB (DIA. 19)	
3	X-4944-907-2	PANEL ASSY, FRONT	
*4	A-4371-154-A	DISPLAY BOARD, COMPLETE	
*5	1-652-633-11	DISPLAY 2 BOARD	
*6	1-652-635-11	VOL BOARD	
*7	1-652-634-11	VIDEO 4 BOARD	

Ref. No.	Part No.	Description	Remark
8	4-951-620-01	SCREW (2.6X8), +BVT	
9	1-590-032-11	WIRE, (FLAT TYPE) (7 CORE)	
10	1-696-725-11	WIRE, (FLAT TYPE) (9 CORE)	
11	1-690-621-11	WIRE, (FLAT TYPE) (21 CORE)	
12	1-696-986-11	WIRE, (FLAT TYPE) (7 CORE)	
13	1-751-688-11	WIRE (FLAT TYPE) (13 CORE)	
14	3-363-099-01	SCREW (CASE 3 TP2)	
15	4-969-987-01	CASE	

3-2. CHASSIS SECTION



Ref.No.	Part No.	Description	Remark
*51	3-332-563-01	BRACKET (P)	
*52	3-346-265-11	HOLDER, PC BOARD	
*53	A-4371-158-A	POWER BOARD, COMPLETE	
*54	A-4371-151-A	MAIN BOARD, COMPLETE	
55	1-696-923-11	WIRE (FLAT TYPE) (5 OCRE)	
*56	1-652-638-11	VIDEO BOARD	

Ref.No.	Part No.	Description	Remark
*57	3-703-571-11	BUSHING (S) (4516), CORD	
58	4-947-010-01	SCREW, FEEDER FIXED	
*59	4-966-349-01	PANEL, BACK	
60	4-933-601-01	FOOT	
△CNP901	1-558-945-21	CORD, POWER (POLAR. SPT-1)	
△T901	1-426-828-11	TRANSFORMER, POWER	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

SECTION 4 ELECTRICAL PARTS LIST

DISPLAY

DISPLAY 3

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA... : μ A..., uPA... : μ PA..., uPB... : μ PB...,
uPC... : μ PC..., uPD... : μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref.No.	Part No.	Description	Remark		
*	A-4371-154-A	DISPLAY BOARD, COMPLETE *****			
		DISPLAY 3 BOARD			
*	4-921-941-01	CUSHION (FL)			
*	4-952-115-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C101	1-164-159-11	CERAMIC	0.1uF		50V
C102	1-124-463-00	ELECT	0.1uF	20%	50V
C103	1-136-173-00	FILM	0.47uF	5%	50V
C105	1-164-159-11	CERAMIC	0.1uF		50V
C106	1-164-159-11	CERAMIC	0.1uF		50V
C107	1-124-907-11	ELECT	10uF	20%	50V
C108	1-161-494-00	CERAMIC	0.022uF		25V
C109	1-124-903-11	ELECT	1uF	20%	50V
C110	1-124-252-00	ELECT	0.33uF	20%	50V
C111	1-124-925-11	ELECT	2.2uF	20%	100V
C112	1-124-903-11	ELECT	1uF	20%	50V
C113	1-124-463-00	ELECT	0.1uF	20%	50V
C114	1-124-254-00	ELECT	0.68uF	20%	50V
C115	1-124-903-11	ELECT	1uF	20%	50V
C116	1-136-162-00	FILM	0.056uF	5%	50V
C117	1-124-252-00	ELECT	0.33uF	20%	50V
C118	1-126-301-11	ELECT	1uF	20%	50V
C119	1-161-494-00	CERAMIC	0.022uF		25V
C120	1-124-463-00	ELECT	0.1uF	20%	50V
C121	1-126-301-11	ELECT	1uF	20%	50V
C122	1-162-306-11	CERAMIC	0.01uF	20%	16V
C123	1-136-160-00	FILM	0.039uF	5%	50V
C124	1-124-903-11	ELECT	1uF	20%	50V
C125	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C126	1-161-494-00	CERAMIC	0.022uF		25V
C127	1-126-301-11	ELECT	1uF	20%	50V
C128	1-130-473-00	MYLAR	0.0015uF	5%	50V
C129	1-124-903-11	ELECT	1uF	20%	50V
C130	1-126-301-11	ELECT	1uF	20%	50V
C131	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C134	1-124-477-11	ELECT	47uF	20%	25V
C201	1-164-159-11	CERAMIC	0.1uF		50V

Ref.No.	Part No.	Description	Remark
< CONNECTOR >			
*CN101	1-565-481-11	CONNECTOR, BOARD TO BOARD 5P	
CN102	1-691-644-11	SOCKET, CONNECTOR 7P	
CN103	1-691-644-11	SOCKET, CONNECTOR 7P	
CN104	1-695-382-11	PIN, CONNECTOR (PC BOARD) 21P	
CN105	1-691-645-11	SOCKET, CONNECTOR 9P	
< DIODE >			
D102	8-719-313-43	DIODE SEL2210S-TH10 (EQ)	
D103	8-719-313-43	DIODE SEL2210S-TH10 (CENTER)	
D104	8-719-313-43	DIODE SEL2210S-TH10 (REAR)	
D105	8-719-313-43	DIODE SEL2210S-TH10 (WOOFER)	
D106	8-719-313-43	DIODE SEL2210S-TH10 (WOOFER ON/OFF)	
D107	8-719-987-63	DIODE 1N4148M	
D108	8-719-987-63	DIODE 1N4148M	
D109	8-719-987-63	DIODE 1N4148M	
D110	8-719-987-63	DIODE 1N4148M	
D111	8-719-987-63	DIODE 1N4148M	
D112	8-719-987-63	DIODE 1N4148M	
D113	8-719-987-63	DIODE 1N4148M	
D115	8-719-987-63	DIODE 1N4148M	
D116	8-719-987-63	DIODE 1N4148M	
D201	8-719-987-63	DIODE 1N4148M	
< FLUORESCENT INDICATOR TUBE >			
FL101	1-517-324-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC101	8-759-165-82	IC PST600E-T	
IC102	8-759-271-03	IC μ PD78042GF-070-3B9	
IC103	8-759-000-48	IC MC14052BCP	
< COIL >			
L101	1-410-521-11	INDUCTOR	100uH
< TRANSISTOR >			
Q101	8-729-900-63	TRANSISTOR	DTA124ES
Q201	8-729-119-78	TRANSISTOR	2SC403SP-51

DISPLAY**DISPLAY 3**

Ref.No.	Part No.	Description	Remark		
< RESISTOR >					
R101	1-249-429-11	CARBON	10K	5%	1/4W
R102	1-249-401-11	CARBON	47	5%	1/4W
R103	1-249-417-11	CARBON	1K	5%	1/4W
R104	1-249-419-11	CARBON	1.5K	5%	1/4W
R105	1-249-419-11	CARBON	1.5K	5%	1/4W
R106	1-249-419-11	CARBON	1.5K	5%	1/4W
R107	1-247-807-31	CARBON	100	5%	1/4W
R108	1-249-406-11	CARBON	120	5%	1/4W
R109	1-249-406-11	CARBON	120	5%	1/4W
R110	1-247-811-31	CARBON	150	5%	1/4W
R111	1-249-408-11	CARBON	180	5%	1/4W
R112	1-249-409-11	CARBON	220	5%	1/4W
R113	1-249-410-11	CARBON	270	5%	1/4W
R114	1-249-411-11	CARBON	330	5%	1/4W
R115	1-249-413-11	CARBON	470	5%	1/4W
R116	1-249-414-11	CARBON	560	5%	1/4W
R117	1-249-416-11	CARBON	820	5%	1/4W
R118	1-249-418-11	CARBON	1.2K	5%	1/4W
R119	1-249-421-11	CARBON	2.2K	5%	1/4W
R120	1-249-424-11	CARBON	3.9K	5%	1/4W
R121	1-249-430-11	CARBON	12K	5%	1/4W
R122	1-247-807-31	CARBON	100	5%	1/4W
R123	1-249-406-11	CARBON	120	5%	1/4W
R124	1-249-406-11	CARBON	120	5%	1/4W
R125	1-247-811-31	CARBON	150	5%	1/4W
R126	1-249-408-11	CARBON	180	5%	1/4W
R127	1-249-409-11	CARBON	220	5%	1/4W
R128	1-249-410-11	CARBON	270	5%	1/4W
R129	1-249-411-11	CARBON	330	5%	1/4W
R130	1-249-413-11	CARBON	470	5%	1/4W
R131	1-249-414-11	CARBON	560	5%	1/4W
R132	1-249-416-11	CARBON	820	5%	1/4W
R133	1-249-418-11	CARBON	1.2K	5%	1/4W
R134	1-249-421-11	CARBON	2.2K	5%	1/4W
R135	1-249-412-11	CARBON	390	5%	1/4W
R136	1-249-412-11	CARBON	390	5%	1/4W
R137	1-247-903-00	CARBON	1M	5%	1/4W
R138	1-249-437-11	CARBON	47K	5%	1/4W
R139	1-249-437-11	CARBON	47K	5%	1/4W
R140	1-249-437-11	CARBON	47K	5%	1/4W
R141	1-249-437-11	CARBON	47K	5%	1/4W
R142	1-249-437-11	CARBON	47K	5%	1/4W
R143	1-249-437-11	CARBON	47K	5%	1/4W
R144	1-249-437-11	CARBON	47K	5%	1/4W
R145	1-249-437-11	CARBON	47K	5%	1/4W
R146	1-249-437-11	CARBON	47K	5%	1/4W
R147	1-249-437-11	CARBON	47K	5%	1/4W

Ref.No.	Part No.	Description	Remark		
R148	1-249-437-11	CARBON	47K	5%	1/4W
R149	1-249-437-11	CARBON	47K	5%	1/4W
R150	1-249-437-11	CARBON	47K	5%	1/4W
R151	1-249-437-11	CARBON	47K	5%	1/4W
R154	1-249-433-11	CARBON	22K	5%	1/4W
R155	1-249-437-11	CARBON	47K	5%	1/4W
R156	1-249-437-11	CARBON	47K	5%	1/4W
R157	1-249-441-11	CARBON	100K	5%	1/4W
R158	1-249-430-11	CARBON	12K	5%	1/4W
R159	1-249-417-11	CARBON	1K	5%	1/4W
R160	1-249-441-11	CARBON	100K	5%	1/4W
R161	1-249-430-11	CARBON	12K	5%	1/4W
R162	1-249-417-11	CARBON	1K	5%	1/4W
R163	1-249-441-11	CARBON	100K	5%	1/4W
R164	1-249-429-11	CARBON	10K	5%	1/4W
R165	1-249-417-11	CARBON	1K	5%	1/4W
R166	1-249-441-11	CARBON	100K	5%	1/4W
R167	1-249-429-11	CARBON	10K	5%	1/4W
R168	1-249-417-11	CARBON	1K	5%	1/4W
R169	1-249-441-11	CARBON	100K	5%	1/4W
R170	1-249-428-11	CARBON	8.2K	5%	1/4W
R171	1-249-418-11	CARBON	1.2K	5%	1/4W
R172	1-249-441-11	CARBON	100K	5%	1/4W
R173	1-249-429-11	CARBON	10K	5%	1/4W
R174	1-249-416-11	CARBON	820	5%	1/4W
R175	1-249-441-11	CARBON	100K	5%	1/4W
R176	1-249-428-11	CARBON	8.2K	5%	1/4W
R177	1-247-807-31	CARBON	100	5%	1/4W
R178	1-247-807-31	CARBON	100	5%	1/4W
R179	1-249-429-11	CARBON	10K	5%	1/4W
R180	1-249-417-11	CARBON	1K	5%	1/4W
R181	1-249-417-11	CARBON	1K	5%	1/4W
R182	1-249-417-11	CARBON	1K	5%	1/4W
R183	1-249-417-11	CARBON	1K	5%	1/4W
R184	1-249-417-11	CARBON	1K	5%	1/4W
R185	1-249-417-11	CARBON	1K	5%	1/4W
R186	1-249-417-11	CARBON	1K	5%	1/4W
R187	1-249-417-11	CARBON	1K	5%	1/4W
R188	1-249-417-11	CARBON	1K	5%	1/4W
R189	1-249-417-11	CARBON	1K	5%	1/4W
R190	1-249-417-11	CARBON	1K	5%	1/4W
R191	1-249-417-11	CARBON	1K	5%	1/4W
R192	1-249-417-11	CARBON	1K	5%	1/4W
R193	1-249-417-11	CARBON	1K	5%	1/4W
R194	1-249-417-11	CARBON	1K	5%	1/4W
R195	1-249-417-11	CARBON	1K	5%	1/4W
R196	1-247-807-31	CARBON	100	5%	1/4W
R197	1-247-807-31	CARBON	100	5%	1/4W

DISPLAY

DISPLAY 3

DISPLAY 2

MAIN

Ref.No.	Part No.	Description	Remark
R198	1-247-807-31	CARBON 100 5% 1/4W	
R199	1-247-807-31	CARBON 100 5% 1/4W	
R200	1-247-807-31	CARBON 100 5% 1/4W	
R201	1-249-429-11	CARBON 10K 5% 1/4W	
R202	1-249-429-11	CARBON 10K 5% 1/4W	
< VARIABLE RESISTOR >			
RV101	1-223-731-11	RES, VAR, CARBON 20K/20K (BALANCE)	
< SWITCH >			
S101	1-554-303-21	SWITCH, TACTILE (VIDEO 1/MD)	
S102	1-554-303-21	SWITCH, TACTILE (VIDEO 2)	
S103	1-554-303-21	SWITCH, TACTILE (VIDEO 3)	
S104	1-554-303-21	SWITCH, TACTILE (VIDEO 4)	
S105	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S106	1-554-303-21	SWITCH, TACTILE (PRO LOGIC MODE)	
S107	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)	
S108	1-554-303-21	SWITCH, TACTILE (SURROUND ON/OFF)	
S109	1-554-303-21	SWITCH, TACTILE (SOUND FIELD)	
S110	1-554-303-21	SWITCH, TACTILE (USER)	
S111	1-554-303-21	SWITCH, TACTILE (1)	
S112	1-554-303-21	SWITCH, TACTILE (2)	
S113	1-554-303-21	SWITCH, TACTILE (3)	
S114	1-554-303-21	SWITCH, TACTILE (4)	
S115	1-554-303-21	SWITCH, TACTILE (5)	
S116	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S117	1-554-303-21	SWITCH, TACTILE (TAPE)	
S118	1-554-303-21	SWITCH, TACTILE (CD)	
S119	1-554-303-21	SWITCH, TACTILE (TUNER)	
S120	1-554-303-21	SWITCH, TACTILE (PHONO)	
S121	1-554-303-21	SWITCH, TACTILE (WOOFER ON/OFF)	
S122	1-554-303-21	SWITCH, TACTILE (WOOFER)	
S123	1-554-303-21	SWITCH, TACTILE (REAR)	
S124	1-554-303-21	SWITCH, TACTILE (CENTER)	
S125	1-554-303-21	SWITCH, TACTILE (EQ)	
S126	1-554-303-21	SWITCH, TACTILE (▼)	
S127	1-554-303-21	SWITCH, TACTILE (▲)	
S128	1-554-303-21	SWITCH, TACTILE (◀)	
S129	1-554-303-21	SWITCH, TACTILE (▶)	
S130	1-554-303-21	SWITCH, TACTILE (EQ FIAT)	
< VIBRATOR >			
X101	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)	

Ref.No.	Part No.	Description	Remark
*	1-652-633-11	DISPLAY 2 BOARD *****	
< CAPACITOR >			
C133	1-161-494-00	CERAMIC 0.022uF	25V
< CONNECTOR >			
*CP101	1-569-799-11	PLUG, CONNECTOR 5P	
< IC >			
IC104	8-749-920-83	IC GP1U52XB	
< SWITCH >			
S131	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	

*	A-4371-151-A	MAIN BOARD, COMPLETE *****	
< CAPACITOR >			
C201	1-162-282-31	CERAMIC 100PF	10% 50V
C202	1-162-282-31	CERAMIC 100PF	10% 50V
C203	1-124-903-11	ELECT 1uF	20% 50V
C204	1-124-903-11	ELECT 1uF	20% 50V
C205	1-162-282-31	CERAMIC 100PF	10% 50V
C206	1-162-282-31	CERAMIC 100PF	10% 50V
C207	1-124-907-11	ELECT 10uF	20% 50V
C208	1-124-907-11	ELECT 10uF	20% 50V
C209	1-130-480-00	MYLAR 0.0056uF	5% 50V
C210	1-130-480-00	MYLAR 0.0056uF	5% 50V
C211	1-130-473-00	MYLAR 0.0015uF	5% 50V
C212	1-130-473-00	MYLAR 0.0015uF	5% 50V
C213	1-124-126-00	ELECT 47uF	20% 10V
C214	1-124-126-00	ELECT 47uF	20% 10V
C215	1-124-903-11	ELECT 1uF	20% 50V
C216	1-124-903-11	ELECT 1uF	20% 50V
C217	1-164-159-11	CERAMIC 0.1uF	50V
C218	1-161-379-00	CERAMIC 0.01uF	20% 25V
C219	1-164-159-11	CERAMIC 0.1uF	50V
C220	1-164-159-11	CERAMIC 0.1uF	50V
C221	1-164-159-11	CERAMIC 0.1uF	50V
C222	1-164-159-11	CERAMIC 0.1uF	50V
C224	1-124-472-11	ELECT 470uF	20% 10V
C225	1-161-379-00	CERAMIC 0.01uF	20% 25V
C226	1-124-925-11	ELECT 2.2uF	20% 100V
C227	1-124-925-11	ELECT 2.2uF	20% 100V
C228	1-124-925-11	ELECT 2.2uF	20% 100V

Ref.No.	Part No.	Description	Remark		
C229	1-124-925-11	ELECT	2.2uF	20%	100V
C230	1-124-925-11	ELECT	2.2uF	20%	100V
C231	1-161-494-00	CERAMIC	0.022uF		25V
C232	1-130-491-00	MYLAR	0.047uF	5%	50V
C233	1-126-176-11	ELECT	220uF	20%	10V
C234	1-124-907-11	ELECT	10uF	20%	50V
C235	1-124-907-11	ELECT	10uF	20%	50V
C236	1-124-907-11	ELECT	10uF	20%	50V
C237	1-124-907-11	ELECT	10uF	20%	50V
C238	1-126-176-11	ELECT	220uF	20%	10V
C239	1-136-165-00	FILM	0.1uF	5%	50V
C240	1-136-165-00	FILM	0.1uF	5%	50V
C241	1-124-902-00	ELECT	0.47uF	20%	50V
C242	1-124-927-11	ELECT	4.7uF	20%	100V
C243	1-124-902-00	ELECT	0.47uF	20%	50V
C244	1-162-286-31	CERAMIC	220PF	10%	50V
C245	1-124-927-11	ELECT	4.7uF	20%	100V
C246	1-136-167-00	FILM	0.15uF	5%	50V
C247	1-126-962-11	ELECT	3.3uF	20%	50V
C248	1-136-167-00	FILM	0.15uF	5%	50V
C249	1-162-292-31	CERAMIC	680PF	10%	50V
C250	1-124-443-00	ELECT	100uF	20%	10V
C251	1-124-907-11	ELECT	10uF	20%	50V
C252	1-124-907-11	ELECT	10uF	20%	50V
C253	1-124-907-11	ELECT	10uF	20%	50V
C254	1-124-902-00	ELECT	0.47uF	20%	50V
C255	1-124-126-00	ELECT	47uF	20%	10V
C256	1-136-165-00	FILM	0.1uF	5%	50V
C257	1-136-165-00	FILM	0.1uF	5%	50V
C258	1-124-902-00	ELECT	0.47uF	20%	50V
C259	1-124-927-11	ELECT	4.7uF	20%	100V
C260	1-124-902-00	ELECT	0.47uF	20%	50V
C261	1-124-927-11	ELECT	4.7uF	20%	100V
C262	1-136-167-00	FILM	0.15uF	5%	50V
C263	1-126-962-11	ELECT	3.3uF	20%	50V
C264	1-136-167-00	FILM	0.15uF	5%	50V
C265	1-124-925-11	ELECT	2.2uF	20%	100V
C266	1-124-907-11	ELECT	10uF	20%	50V
C267	1-124-907-11	ELECT	10uF	20%	50V
C268	1-124-907-11	ELECT	10uF	20%	50V
C269	1-124-907-11	ELECT	10uF	20%	50V
C270	1-126-176-11	ELECT	220uF	20%	10V
C271	1-130-489-00	MYLAR	0.033uF	5%	50V
C272	1-130-473-00	MYLAR	0.0015uF	5%	50V
C273	1-130-489-00	MYLAR	0.033uF	5%	50V
C274	1-124-903-11	ELECT	1uF	20%	50V
C275	1-124-443-00	ELECT	100uF	20%	10V
C276	1-124-927-11	ELECT	4.7uF	20%	100V

Ref.No.	Part No.	Description	Remark		
C277	1-124-927-11	ELECT	4.7uF	20%	100V
C278	1-124-903-11	ELECT	1uF	20%	50V
C279	1-124-903-11	ELECT	1uF	20%	50V
C280	1-130-493-00	MYLAR	0.068uF	5%	50V
C281	1-124-902-00	ELECT	0.47uF	20%	50V
C282	1-130-488-00	MYLAR	0.027uF	5%	50V
C283	1-136-168-00	FILM	0.18uF	5%	50V
C284	1-130-483-00	MYLAR	0.01uF	5%	50V
C285	1-130-493-00	MYLAR	0.068uF	5%	50V
C286	1-130-478-00	MYLAR	0.0039uF	5%	50V
C287	1-130-489-00	MYLAR	0.033uF	5%	50V
C288	1-124-903-11	ELECT	1uF	20%	50V
C289	1-130-474-00	MYLAR	0.0018uF	5%	50V
C290	1-130-484-00	MYLAR	0.012uF	5%	50V
C291	1-162-292-31	CERAMIC	680PF	10%	50V
C292	1-130-479-00	MYLAR	0.0047uF	5%	50V
C293	1-162-287-31	CERAMIC	270PF	10%	50V
C294	1-124-903-11	ELECT	1uF	20%	50V
C295	1-130-493-00	MYLAR	0.068uF	5%	50V
C296	1-124-902-00	ELECT	0.47uF	20%	50V
C297	1-130-488-00	MYLAR	0.027uF	5%	50V
C298	1-136-168-00	FILM	0.18uF	5%	50V
C299	1-130-483-00	MYLAR	0.01uF	5%	50V
C300	1-130-493-00	MYLAR	0.068uF	5%	50V
C301	1-130-478-00	MYLAR	0.0039uF	5%	50V
C302	1-130-489-00	MYLAR	0.033uF	5%	50V
C303	1-130-474-00	MYLAR	0.0018uF	5%	50V
C304	1-130-484-00	MYLAR	0.012uF	5%	50V
C305	1-162-292-31	CERAMIC	680PF	10%	50V
C306	1-130-479-00	MYLAR	0.0047uF	5%	50V
C307	1-162-287-31	CERAMIC	270PF	10%	50V
C308	1-124-907-11	ELECT	10uF	20%	50V
C309	1-124-907-11	ELECT	10uF	20%	50V
C310	1-161-379-00	CERAMIC	0.01uF	20%	25V
C311	1-161-379-00	CERAMIC	0.01uF	20%	25V
C312	1-161-379-00	CERAMIC	0.01uF	20%	25V
C313	1-161-379-00	CERAMIC	0.01uF	20%	25V
C314	1-162-294-31	CERAMIC	0.001uF	10%	50V
C315	1-162-294-31	CERAMIC	0.001uF	10%	50V
C316	1-124-927-11	ELECT	4.7uF	20%	100V
C317	1-124-927-11	ELECT	4.7uF	20%	100V
C318	1-124-907-11	ELECT	10uF	20%	50V
C319	1-124-907-11	ELECT	10uF	20%	50V
C320	1-124-472-11	ELECT	470uF	20%	10V
C321	1-124-472-11	ELECT	470uF	20%	10V
C322	1-124-927-11	ELECT	4.7uF	20%	100V
C323	1-124-927-11	ELECT	4.7uF	20%	100V
C324	1-136-165-00	FILM	0.1uF	5%	50V
C325	1-136-165-00	FILM	0.1uF	5%	50V

MAIN

Ref.No.	Part No.	Description	Remark
C326	1-124-903-11	ELECT	1uF 20% 50V
C327	1-124-903-11	ELECT	1uF 20% 50V
C328	1-136-165-00	FILM	0.1uF 5% 50V
C329	1-136-165-00	FILM	0.1uF 5% 50V
C330	1-124-472-11	ELECT	470uF 20% 10V
C331	1-124-472-11	ELECT	470uF 20% 10V
C332	1-124-907-11	ELECT	10uF 20% 50V
C333	1-124-907-11	ELECT	10uF 20% 50V
C334	1-124-925-11	ELECT	2.2uF 20% 100V
C335	1-136-165-00	FILM	0.1uF 5% 50V
C336	1-124-472-11	ELECT	470uF 20% 10V
C337	1-124-907-11	ELECT	10uF 20% 50V
C338	1-124-472-11	ELECT	470uF 20% 10V
C339	1-124-472-11	ELECT	470uF 20% 10V
C340	1-124-907-11	ELECT	10uF 20% 50V
C341	1-124-927-11	ELECT	4.7uF 20% 100V
C342	1-124-927-11	ELECT	4.7uF 20% 100V
C343	1-162-215-31	CERAMIC	47PF 5% 50V
C344	1-162-215-31	CERAMIC	47PF 5% 50V
C345	1-164-159-11	CERAMIC	0.1uF 50V
C346	1-164-159-11	CERAMIC	0.1uF 50V
C347	1-124-903-11	ELECT	1uF 20% 50V
C348	1-124-903-11	ELECT	1uF 20% 50V
C349	1-124-907-11	ELECT	10uF 20% 50V
C352	1-126-176-11	ELECT	220uF 20% 10V
C353	1-124-473-11	ELECT	1000uF 20% 10V
C354	1-124-473-11	ELECT	1000uF 20% 10V
C355	1-124-473-11	ELECT	1000uF 20% 10V
C356	1-124-472-11	ELECT	470uF 20% 10V
C357	1-164-159-11	CERAMIC	0.1uF 50V
C358	1-164-159-11	CERAMIC	0.1uF 50V
C359	1-124-907-11	ELECT	10uF 20% 50V
C360	1-164-159-11	CERAMIC	0.1uF 50V
C363	1-124-907-11	ELECT	10uF 20% 50V
C365	1-124-126-00	ELECT	47uF 20% 10V
C366	1-124-472-11	ELECT	470uF 20% 10V
C367	1-124-126-00	ELECT	47uF 20% 10V
C368	1-124-472-11	ELECT	470uF 20% 10V
C369	1-124-126-00	ELECT	47uF 20% 10V
C380	1-124-473-11	ELECT	1000uF 20% 10V
C381	1-164-159-11	CERAMIC	0.1uF 50V
< CONNECTOR >			
*CN201	1-564-337-00	PIN, CONNECTOR 3P	
CN202	1-695-328-11	PIN, CONNECTOR (PC BOARD) 5P	
CN203	1-695-336-31	PIN, CONNECTOR (PC BOARD) 13P	
CN204	1-695-344-11	PIN, CONNECTOR (PC BOARD) 21P	
CN205	1-695-330-31	PIN, CONNECTOR (PC BOARD) 7P	
CN206	1-564-980-11	PIN, CONNECTOR 4P (CONTROL S (OUT))	
CN207	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	

Ref.No.	Part No.	Description	Remark
< DIODE >			
D201	8-719-987-63	DIODE	1N4148M
D202	8-719-987-63	DIODE	1N4148M
D203	8-719-987-63	DIODE	1N4148M
D204	8-719-987-63	DIODE	1N4148M
< IC >			
IC201	8-759-634-50	IC	M5218AL
IC202	8-759-805-14	IC	LC7822
IC203	8-759-000-49	IC	MC14066BCP
IC204	8-759-000-49	IC	MC14066BCP
IC206	8-759-248-74	IC	LA2785
IC207	8-759-168-98	IC	LV1010N
IC208	8-759-633-78	IC	M5289P
IC209	8-759-633-78	IC	M5289P
IC210	8-759-081-01	IC	NJU7305L
IC211	8-759-634-50	IC	M5218AL
IC212	8-759-634-50	IC	M5218AL
IC213	8-759-634-50	IC	M5218AL
IC214	8-759-248-76	IC	LC7824
IC215	8-759-634-50	IC	M5218AL
IC216	8-759-634-50	IC	M5218AL
< JACK >			
J201	1-766-558-21	JACK, PIN 8P (PHONO(IN), TUNER(IN), CD(IN), TAPE(REC OUT))	
*J202	1-573-028-11	JACK, PIN 4P (TAPE(IN), VIDEO 3 (AUDIO IN))	
J203	1-766-558-11	JACK, PIN 8P (VIDEO 2 (AUDIO OUT) (AUDIO IN), VIDEO 1/MD(AUDIO OUT) (AUDIO IN))	
J204	1-766-556-21	JACK, PIN 3P (OUTPUT (WOOFER) (FRONT))	
J205	1-766-555-11	JACK, PIN 2P (OUTPUT (CENTER) (REAR))	
J206	1-566-819-41	JACK 1P (POWER AMP CONTROL S (OUT))	
< COIL >			
L201	1-410-521-11	INDUCTOR	100uH
L202	1-410-521-11	INDUCTOR	100uH
< TRANSISTOR >			
Q201	8-729-900-36	TRANSISTOR	DTC124ES
Q202	8-729-900-36	TRANSISTOR	DTC124ES
Q203	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q204	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q205	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q206	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q207	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q208	8-729-900-63	TRANSISTOR	DTA124ES
Q210	8-729-900-63	TRANSISTOR	DTA124ES
Q211	8-729-900-63	TRANSISTOR	DTA124ES

Ref.No.	Part No.	Description	Remark			
Q212	8-729-900-63	TRANSISTOR	DTA124ES			
Q214	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q216	8-729-900-63	TRANSISTOR	DTA124ES			
Q217	8-729-900-63	TRANSISTOR	DTA124ES			
Q218	8-729-900-63	TRANSISTOR	DTA124ES			
Q219	8-729-900-36	TRANSISTOR	DTC124ES			
Q220	8-729-900-36	TRANSISTOR	DTC124ES			
Q221	8-729-900-36	TRANSISTOR	DTC124ES			
< RESISTOR >						
R197	1-249-429-11	CARBON	10K	5%	1/4W	
R198	1-249-429-11	CARBON	10K	5%	1/4W	
R199	1-249-419-11	CARBON	1.5K	5%	1/4W	
R200	1-249-419-11	CARBON	1.5K	5%	1/4W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-417-11	CARBON	1K	5%	1/4W	
R204	1-249-417-11	CARBON	1K	5%	1/4W	
R205	1-249-430-11	CARBON	12K	5%	1/4W	
R206	1-249-430-11	CARBON	12K	5%	1/4W	
R207	1-247-807-31	CARBON	100	5%	1/4W	
R208	1-247-807-31	CARBON	100	5%	1/4W	
R209	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-249-417-11	CARBON	1K	5%	1/4W	
R211	1-249-417-11	CARBON	1K	5%	1/4W	
R212	1-249-417-11	CARBON	1K	5%	1/4W	
R213	1-247-807-31	CARBON	100	5%	1/4W	
R214	1-247-807-31	CARBON	100	5%	1/4W	
R215	1-249-417-11	CARBON	1K	5%	1/4W	
R216	1-249-417-11	CARBON	1K	5%	1/4W	
R217	1-247-807-31	CARBON	100	5%	1/4W	
R218	1-247-807-31	CARBON	100	5%	1/4W	
R219	1-249-430-11	CARBON	12K	5%	1/4W	
R220	1-249-430-11	CARBON	12K	5%	1/4W	
R221	1-247-895-00	CARBON	470K	5%	1/4W	
R222	1-247-895-00	CARBON	470K	5%	1/4W	
R223	1-247-895-00	CARBON	470K	5%	1/4W	
R224	1-247-895-00	CARBON	470K	5%	1/4W	
R225	1-249-437-11	CARBON	47K	5%	1/4W	
R226	1-249-437-11	CARBON	47K	5%	1/4W	
R227	1-249-415-11	CARBON	680	5%	1/4W	
R229	1-247-897-11	CARBON	560K	5%	1/4W	
R230	1-247-897-11	CARBON	560K	5%	1/4W	
R231	1-249-437-11	CARBON	47K	5%	1/4W	
R232	1-249-437-11	CARBON	47K	5%	1/4W	
R233	1-249-417-11	CARBON	1K	5%	1/4W	
R234	1-249-417-11	CARBON	1K	5%	1/4W	
R235	1-249-441-11	CARBON	100K	5%	1/4W	
R236	1-249-441-11	CARBON	100K	5%	1/4W	
R237	1-249-425-11	CARBON	4.7K	5%	1/4W	

Ref.No.	Part No.	Description	Remark			
R238	1-249-441-11	CARBON	100K	5%	1/4W	
R239	1-249-441-11	CARBON	100K	5%	1/4W	
R240	1-249-441-11	CARBON	100K	5%	1/4W	
R241	1-249-441-11	CARBON	100K	5%	1/4W	
R242	1-249-441-11	CARBON	100K	5%	1/4W	
R243	1-249-441-11	CARBON	100K	5%	1/4W	
R244	1-247-807-31	CARBON	100	5%	1/4W	
R245	1-247-807-31	CARBON	100	5%	1/4W	
R246	1-249-441-11	CARBON	100K	5%	1/4W	
R247	1-249-441-11	CARBON	100K	5%	1/4W	
R248	1-249-441-11	CARBON	100K	5%	1/4W	
R249	1-249-435-11	CARBON	33K	5%	1/4W	
R250	1-247-903-00	CARBON	1M	5%	1/4W	
R251	1-249-425-11	CARBON	4.7K	5%	1/4W	
R252	1-249-425-11	CARBON	4.7K	5%	1/4W	
R253	1-247-895-00	CARBON	470K	5%	1/4W	
R254	1-247-895-00	CARBON	470K	5%	1/4W	
R255	1-247-895-00	CARBON	470K	5%	1/4W	
R256	1-247-895-00	CARBON	470K	5%	1/4W	
R257	1-247-895-00	CARBON	470K	5%	1/4W	
R258	1-247-895-00	CARBON	470K	5%	1/4W	
R259	1-247-895-00	CARBON	470K	5%	1/4W	
R260	1-247-895-00	CARBON	470K	5%	1/4W	
R261	1-247-895-00	CARBON	470K	5%	1/4W	
R262	1-247-895-00	CARBON	470K	5%	1/4W	
R263	1-247-895-00	CARBON	470K	5%	1/4W	
R264	1-247-895-00	CARBON	470K	5%	1/4W	
R265	1-247-895-00	CARBON	470K	5%	1/4W	
R266	1-247-895-00	CARBON	470K	5%	1/4W	
R267	1-249-425-11	CARBON	4.7K	5%	1/4W	
R268	1-249-417-11	CARBON	1K	5%	1/4W	
R269	1-249-425-11	CARBON	4.7K	5%	1/4W	
R270	1-249-417-11	CARBON	1K	5%	1/4W	
R271	1-249-417-11	CARBON	1K	5%	1/4W	
R272	1-249-417-11	CARBON	1K	5%	1/4W	
R273	1-247-895-00	CARBON	470K	5%	1/4W	
R274	1-247-895-00	CARBON	470K	5%	1/4W	
R275	1-249-417-11	CARBON	1K	5%	1/4W	
R276	1-249-417-11	CARBON	1K	5%	1/4W	
R277	1-249-431-11	CARBON	15K	5%	1/4W	
R278	1-249-431-11	CARBON	15K	5%	1/4W	
R279	1-249-438-11	CARBON	56K	5%	1/4W	
R280	1-249-438-11	CARBON	56K	5%	1/4W	
R281	1-249-436-11	CARBON	39K	5%	1/4W	
R282	1-249-436-11	CARBON	39K	5%	1/4W	
R283	1-247-899-11	CARBON	680K	5%	1/4W	
R284	1-247-899-11	CARBON	680K	5%	1/4W	
R285	1-249-416-11	CARBON	820	5%	1/4W	
R286	1-249-416-11	CARBON	820	5%	1/4W	
R287	1-249-389-11	CARBON	4.7	5%	1/4W	

MAIN

Ref.No.	Part No.	Description	Remark
R288	1-249-389-11	CARBON	4.7 5% 1/4W
R289	1-249-426-11	CARBON	5.6K 5% 1/4W
R290	1-249-426-11	CARBON	5.6K 5% 1/4W
R291	1-249-426-11	CARBON	5.6K 5% 1/4W
R293	1-249-437-11	CARBON	47K 5% 1/4W
R294	1-249-417-11	CARBON	1K 5% 1/4W
R295	1-249-424-11	CARBON	3.9K 5% 1/4W
R296	1-249-420-11	CARBON	1.8K 5% 1/4W
R297	1-249-423-11	CARBON	3.3K 5% 1/4W
R298	1-249-423-11	CARBON	3.3K 5% 1/4W
R299	1-249-421-11	CARBON	2.2K 5% 1/4W
R300	1-249-424-11	CARBON	3.9K 5% 1/4W
R301	1-249-417-11	CARBON	1K 5% 1/4W
R302	1-249-425-11	CARBON	4.7K 5% 1/4W
R303	1-249-409-11	CARBON	220 5% 1/4W
R304	1-249-441-11	CARBON	100K 5% 1/4W
R305	1-249-441-11	CARBON	100K 5% 1/4W
R306	1-249-441-11	CARBON	100K 5% 1/4W
R307	1-249-439-11	CARBON	68K 5% 1/4W
R308	1-249-439-11	CARBON	68K 5% 1/4W
R309	1-249-441-11	CARBON	100K 5% 1/4W
R310	1-249-441-11	CARBON	100K 5% 1/4W
R311	1-249-421-11	CARBON	2.2K 5% 1/4W
R312	1-249-421-11	CARBON	2.2K 5% 1/4W
R315	1-249-421-11	CARBON	2.2K 5% 1/4W
R316	1-249-441-11	CARBON	100K 5% 1/4W
R317	1-249-421-11	CARBON	2.2K 5% 1/4W
R318	1-249-441-11	CARBON	100K 5% 1/4W
R319	1-249-421-11	CARBON	2.2K 5% 1/4W
R320	1-249-441-11	CARBON	100K 5% 1/4W
R322	1-249-441-11	CARBON	100K 5% 1/4W
R324	1-249-437-11	CARBON	47K 5% 1/4W
R325	1-249-441-11	CARBON	100K 5% 1/4W
R326	1-249-441-11	CARBON	100K 5% 1/4W
R327	1-249-441-11	CARBON	100K 5% 1/4W
R328	1-249-421-11	CARBON	2.2K 5% 1/4W
R329	1-249-429-11	CARBON	10K 5% 1/4W
R330	1-249-429-11	CARBON	10K 5% 1/4W
R331	1-249-429-11	CARBON	10K 5% 1/4W
R332	1-249-429-11	CARBON	10K 5% 1/4W
R333	1-249-421-11	CARBON	2.2K 5% 1/4W
R334	1-249-421-11	CARBON	2.2K 5% 1/4W
R335	1-249-435-11	CARBON	33K 5% 1/4W
R336	1-249-421-11	CARBON	2.2K 5% 1/4W
R337	1-249-435-11	CARBON	33K 5% 1/4W
R338	1-249-417-11	CARBON	1K 5% 1/4W
R339	1-249-435-11	CARBON	33K 5% 1/4W
R340	1-249-421-11	CARBON	2.2K 5% 1/4W

Ref.No.	Part No.	Description	Remark
R341	1-249-435-11	CARBON	33K 5% 1/4W
R342	1-249-425-11	CARBON	4.7K 5% 1/4W
R343	1-249-417-11	CARBON	1K 5% 1/4W
R344	1-247-895-00	CARBON	470K 5% 1/4W
R345	1-249-393-11	CARBON	10 5% 1/4W
R346	1-249-417-11	CARBON	1K 5% 1/4W
R348	1-249-421-11	CARBON	2.2K 5% 1/4W
R349	1-247-903-00	CARBON	1M 5% 1/4W
R350	1-249-433-11	CARBON	22K 5% 1/4W
R351	1-249-433-11	CARBON	22K 5% 1/4W
R352	1-249-433-11	CARBON	22K 5% 1/4W
R353	1-249-441-11	CARBON	100K 5% 1/4W
R354	1-249-431-11	CARBON	15K 5% 1/4W
R355	1-249-411-11	CARBON	330 5% 1/4W
R356	1-249-421-11	CARBON	2.2K 5% 1/4W
R357	1-249-421-11	CARBON	2.2K 5% 1/4W
R358	1-249-421-11	CARBON	2.2K 5% 1/4W
R359	1-249-408-11	CARBON	180 5% 1/4W
R361	1-249-417-11	CARBON	1K 5% 1/4W
R362	1-249-417-11	CARBON	1K 5% 1/4W
R363	1-249-417-11	CARBON	1K 5% 1/4W
R364	1-249-417-11	CARBON	1K 5% 1/4W
R365	1-249-417-11	CARBON	1K 5% 1/4W
R366	1-249-417-11	CARBON	1K 5% 1/4W
R367	1-249-417-11	CARBON	1K 5% 1/4W
R368	1-249-393-11	CARBON	10 5% 1/4W
R369	1-249-393-11	CARBON	10 5% 1/4W
R371	1-249-409-11	CARBON	220 5% 1/4W
R372	1-249-409-11	CARBON	220 5% 1/4W
R373	1-249-409-11	CARBON	220 5% 1/4W
R374	1-249-409-11	CARBON	220 5% 1/4W
R375	1-249-409-11	CARBON	220 5% 1/4W
R376	1-249-409-11	CARBON	220 5% 1/4W
R377	1-249-409-11	CARBON	220 5% 1/4W
R378	1-249-409-11	CARBON	220 5% 1/4W
R379	1-249-431-11	CARBON	15K 5% 1/4W
R380	1-249-417-11	CARBON	1K 5% 1/4W
R381	1-249-435-11	CARBON	33K 5% 1/4W
R382	1-249-423-11	CARBON	3.3K 5% 1/4W
R383	1-249-435-11	CARBON	33K 5% 1/4W
R384	1-249-423-11	CARBON	3.3K 5% 1/4W

< VIBRATOR >

X201 1-579-125-11 VIBRATOR, CERAMIC (8MHz)

Ref.No.	Part No.	Description	Remark
*	A-4371-158-A	POWER BOARD, COMPLETE *****	
*	3-309-144-21	HEAT SINK	
*	4-942-204-01	PLATE, GROUND	
	7-682-548-04	SCREW +BVTT 3X8 (S)	
< CAPACITOR >			
C901	1-126-943-11	ELECT 2200uF	20% 25V
C902	1-126-943-11	ELECT 2200uF	20% 25V
C903	1-126-101-11	ELECT 100uF	20% 16V
C904	1-126-101-11	ELECT 100uF	20% 16V
C905	1-124-927-11	ELECT 4.7uF	20% 100V
C906	1-124-927-11	ELECT 4.7uF	20% 100V
C907	1-124-903-11	ELECT 1uF	20% 50V
C908	1-124-472-11	ELECT 470uF	20% 10V
C909	1-124-472-11	ELECT 470uF	20% 10V
C910	1-124-443-00	ELECT 100uF	20% 10V
C911	1-124-443-00	ELECT 100uF	20% 10V
C912	1-124-913-11	ELECT 470uF	20% 50V
C913	1-124-907-11	ELECT 10uF	20% 50V
C914	1-124-910-11	ELECT 47uF	20% 50V
△C915	1-161-744-51	CERAMIC 0.01uF	400V
C916	1-124-907-11	ELECT 10uF	20% 50V
C917	1-136-165-00	FILM 0.1uF	5% 50V
C920	1-124-927-11	ELECT 4.7uF	20% 100V
< CONNECTOR >			
CN901	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P	
△CN902	1-540-059-11	OUTLET, AC (POLAR) (AC OUTLET, SWITCHED 480W/4A MAX)	
△CN903	1-540-059-11	OUTLET, AC (POLAR) (AC OUTLET, SWITCHED 480W/4A MAX)	
CN904	1-695-330-31	PIN, CONNECTOR (PC BOARD) 7P	
< DIODE >			
D901	8-719-200-82	DIODE 11ES2	
D902	8-719-200-82	DIODE 11ES2	
D903	8-719-200-82	DIODE 11ES2	
D904	8-719-200-82	DIODE 11ES2	
D905	8-719-200-82	DIODE 11ES2	
D906	8-719-002-48	DIODE UZL-27H	
D907	8-719-014-74	DIODE UZP-6.2B	
D908	8-719-987-63	DIODE 1N4148M	
D909	8-719-987-63	DIODE 1N4148M	

Ref.No.	Part No.	Description	Remark
< IC >			
IC901	8-759-602-66	IC M5230L-A	
IC902	8-759-604-35	IC M5F78M05L	
IC903	8-759-604-35	IC M5F78M05L	
< TRANSISTOR >			
Q901	8-729-209-15	TRANSISTOR 2SD2012	
Q902	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q903	8-729-802-88	TRANSISTOR 2SB892-T	
Q904	8-729-900-36	TRANSISTOR DTC124ES	
Q905	8-729-900-36	TRANSISTOR DTC124ES	
Q906	8-729-900-63	TRANSISTOR DTA124ES	
Q907	8-729-820-24	TRANSISTOR 2SC3330-T	
Q908	8-729-203-76	TRANSISTOR 2SC3328-Y	
Q909	8-729-203-76	TRANSISTOR 2SC3328-Y	
< RESISTOR >			
R901	1-249-474-11	CARBON 1 5% 1/2W	
R902	1-249-474-11	CARBON 1 5% 1/2W	
R903	1-247-903-00	CARBON 1M 5% 1/4W	
R904	1-247-811-31	CARBON 150 5% 1/4W	
R905	1-247-811-31	CARBON 150 5% 1/4W	
R906	1-249-409-11	CARBON 220 5% 1/4W	
R907	1-249-409-11	CARBON 220 5% 1/4W	
R908	1-249-431-11	CARBON 15K 5% 1/4W	
R909	1-249-424-11	CARBON 3.9K 5% 1/4W	
R910	1-249-431-11	CARBON 15K 5% 1/4W	
R911	1-249-431-11	CARBON 15K 5% 1/4W	
R912	1-249-389-11	CARBON 4.7 5% 1/4W	
R915	1-249-429-11	CARBON 10K 5% 1/4W	
R916	1-249-395-11	CARBON 15 5% 1/4W	
R917	1-249-425-11	CARBON 4.7K 5% 1/4W	
R918	1-249-434-11	CARBON 27K 5% 1/4W	
R919	1-249-425-11	CARBON 4.7K 5% 1/4W	
R920	1-249-427-11	CARBON 6.8K 5% 1/4W	
R921	1-249-429-11	CARBON 10K 5% 1/4W	
R922	1-249-429-11	CARBON 10K 5% 1/4W	
R923	1-247-895-00	CARBON 470K 5% 1/4W	
R924	1-247-895-00	CARBON 470K 5% 1/4W	
R925	1-260-080-11	CARBON 27 5% 1/2W	
< RELAY >			
△RY901	1-515-701-11	RELAY	
< TRANSFORMER >			
△T901	1-426-828-11	TRANSFORMER, POWER	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

VIDEO

VIDEO 4

VOL

Ref.No.	Part No.	Description	Remark
*	1-652-638-11	VIDEO BOARD *****	
		< CAPACITOR >	
C501	1-124-927-11	ELECT 4.7uF	20% 100V
C502	1-124-927-11	ELECT 4.7uF	20% 100V
C503	1-124-927-11	ELECT 4.7uF	20% 100V
C504	1-124-927-11	ELECT 4.7uF	20% 100V
C505	1-164-159-11	CERAMIC 0.1uF	50V
C506	1-124-471-00	ELECT 1000uF	20% 6.3V
C507	1-124-471-00	ELECT 1000uF	20% 6.3V
C508	1-124-471-00	ELECT 1000uF	20% 6.3V
C509	1-124-443-00	ELECT 100uF	20% 10V
		< CONNECTOR >	
*CN501	1-564-336-00	PIN, CONNECTOR 2P	
CN502	1-766-581-11	SOCKET, CONNECTOR (NON ZIF) 5P	
		< IC >	
IC501	8-759-061-95	IC SN761200	
		< JACK >	
J501	1-766-748-11	JACK 3P (VIDEO1/MD(VIDEO IN)(VIDEO OUT) ,MONITOR(VIDEO OUT))	
J502	1-766-199-11	JACK, PIN 3P(VIDEO 2(VIDEO IN)(VIDEO OUT) ,VIDEO 3(VIDEO OUT))	
		< COIL >	
L501	1-410-521-11	INDUCTOR 100uH	
		< TRANSISTOR >	
Q501	8-729-141-03	TRANSISTOR 2SA733-QP	
Q502	8-729-141-03	TRANSISTOR 2SA733-QP	
Q503	8-729-141-03	TRANSISTOR 2SA733-QP	
		< RESISTOR >	
R501	1-247-804-11	CARBON 75 5% 1/4W	
R502	1-247-804-11	CARBON 75 5% 1/4W	
R503	1-247-804-11	CARBON 75 5% 1/4W	
R504	1-247-807-31	CARBON 100 5% 1/4W	
R505	1-249-429-11	CARBON 10K 5% 1/4W	
R506	1-247-804-11	CARBON 75 5% 1/4W	
R507	1-247-807-31	CARBON 100 5% 1/4W	
R508	1-247-807-31	CARBON 100 5% 1/4W	
R509	1-249-429-11	CARBON 10K 5% 1/4W	
R510	1-247-804-11	CARBON 75 5% 1/4W	
R511	1-247-807-31	CARBON 100 5% 1/4W	
R512	1-247-807-31	CARBON 100 5% 1/4W	

Ref.No.	Part No.	Description	Remark
R513	1-249-429-11	CARBON 10K 5% 1/4W	
R514	1-247-804-11	CARBON 75 5% 1/4W	
R515	1-247-807-31	CARBON 100 5% 1/4W	

*	1-652-634-11	VIDEO 4 BOARD *****	
		< CAPACITOR >	
C601	1-164-159-11	CERAMIC 0.1uF	50V
C602	1-164-159-11	CERAMIC 0.1uF	50V
		< JACK >	
J601	1-580-174-31	JACK, PIN (3P FRONT) (VIDEO, AUDIO)	
		< RESISTOR >	
R601	1-247-804-11	CARBON 75 5% 1/4W	
R602	1-249-417-11	CARBON 1K 5% 1/4W	
R603	1-249-417-11	CARBON 1K 5% 1/4W	

*	1-652-635-11	VOL BOARD *****	
		< CAPACITOR >	
C401	1-124-443-00	ELECT 100uF	20% 10V
C402	1-164-159-11	CERAMIC 0.1uF	50V
C403	1-164-159-11	CERAMIC 0.1uF	50V
		< CONNECTOR >	
*CN401	1-695-374-31	PIN, CONNECTOR (PC BOARD) 13P	
CN402	1-568-828-11	PIN, CONNECTOR (PC BOARD) 9P	
		< IC >	
IC401	8-759-820-62	IC LB1639	
		< COIL >	
L401	1-410-521-11	INDUCTOR 100uH	
		< RESISTOR >	
R401	1-249-411-11	CARBON 330 5% 1/4W	
R402	1-249-429-11	CARBON 10K 5% 1/4W	
R403	1-249-429-11	CARBON 10K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV401	1-241-816-11	RES, VAR, CARBON 100K (MASTER VOLUME)	

Ref.No.	Part No.	Description	Remark
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MISCELLANEOUS

9	1-590-032-11	WIRE, FLAT TYPE (7 CORE)	
10	1-696-725-11	WIRE (FLAT TYPE) (9 CORE)	
11	1-690-621-11	WIRE, FLAT TYPE (21 CORE)	
12	1-696-986-11	WIRE (FLAT TYPE) (7 CORE)	
13	1-751-688-11	WIRE (FLAT TYPE) (13 CORE)	

55	1-696-923-11	WIRE (FLAT TYPE) (5 CORE)	
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△CNP901	1-558-945-21	CORD, POWER (POLAR.SPT-1)	
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△T901	1-426-828-11	TRANSFORMER, POWER	
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HARDWARE LIST

#1	7-682-548-04	SCREW +BVT 3X8 (S)
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#3	7-682-550-04	SCREW +BVT 3X12 (S)

The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

