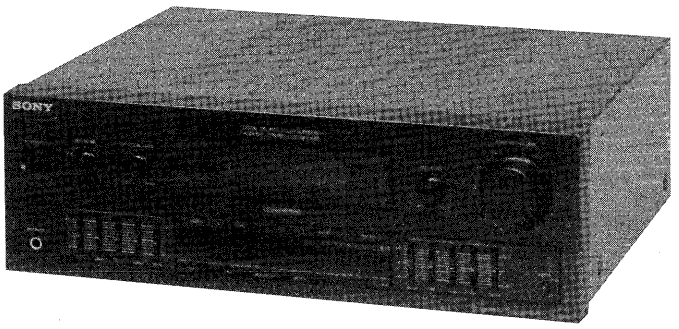
TA-AV411

SERVICE MANUAL

US Model



SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8-ohm loads, both channels driven, from 40 - 20,000 Hz; rated 135 watts per channel minimum RMS power, with less than 0.9% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

Power bandwidth (IHF)
30 Hz – 30 kHz (8 ohms)

Dynamic headroom 1.7 dB ('78 IHF)

Harmonic distortion Less than 0.9% at rated output (Surround OFF)

Frequency response PHONO: RIAA equalization curve
CD, VIDEO, TUNER, TAPE:
30 Hz – 30 kHz ±3dB

Surround output 15 W + 15 W (8 ohms)

Damping factor 27 (8 ohms, 1 kHz)

Input

Input jack	Jack type	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO	Phono	3.0 mV	50 kohms	71 dB 75 dB* (A, 3.0 mV)
CD,VIDEO, TUNER, TAPE	Phono	250 mV	50 kohms	92 dB 83 dB* (A, 250 mV)

*'78 IHF

Output

TAPE (REC OUT)	Phono jacks	Voltage 150 mV Impedance 1 kohm
SPEAKERS	–	Accepts speakers of 8 – 16 ohms
HEADPHONES	Stereo phone jack	Accepts low and high impedance headphones.

GRAPHIC EQUALIZER controls
Boost/Cut range:
±8 dB (100 Hz, 330 Hz, 1 kHz, 3.3 kHz)
±6 dB (10 kHz)

General

Power requirements
120 V AC, 60 Hz

Power consumption
250 W

AC outlets 3 switched, 120 V/1 A max.

Dimensions Approx. 430 x 145 x 360 mm (w/h/d)
(17 x $5^5/_8$ x $14^1/_8$ inches)

Weight Approx. 9.9 kg (21 lb 14 oz)

Accessories supplied
Remote Commander RM-U212 (1)
Sony batteries SUM 3(NS) (2)

Design and specifications subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

INTEGRATED STEREO 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)

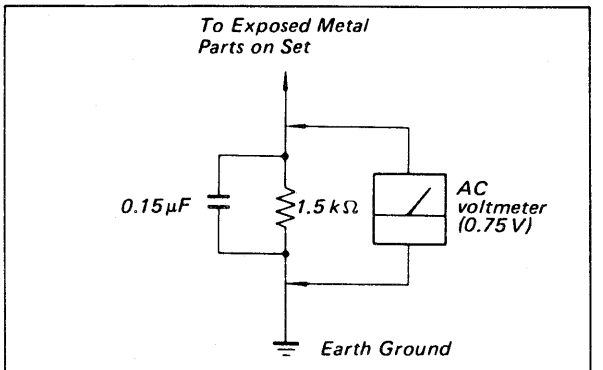


Fig. A. Using an AC voltmeter to check AC leakage.

TABLE OF CONTENTS

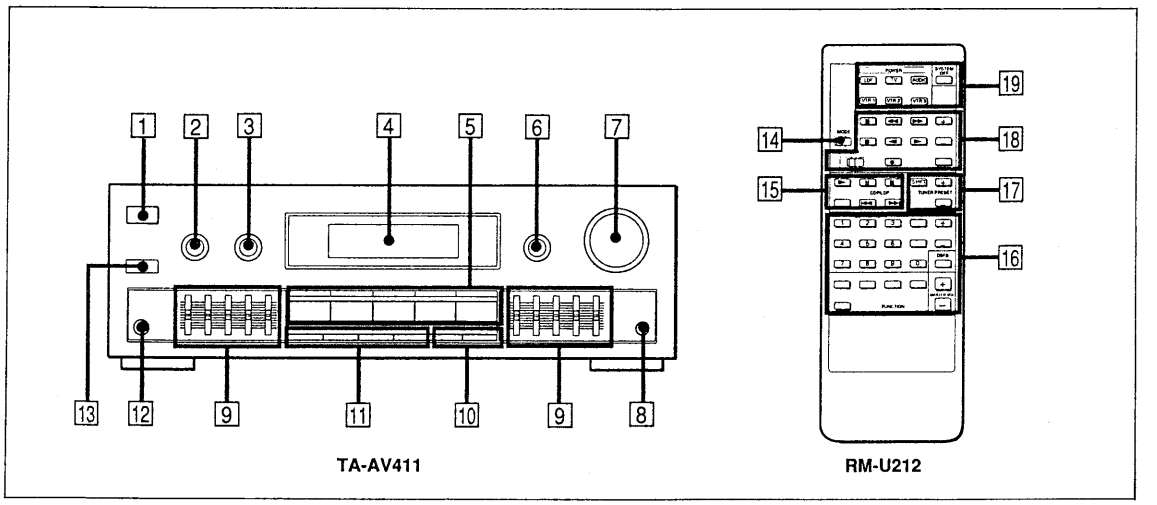
SAFETY-RELATED COMPONENT WARNING!!

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.

SECTION 1
GENERAL

This section is extracted from instraction manual.

1-1. Location and Function of Controls



TA-AV411 RM-U212

Amplifier

1 **SYSTEM POWER switch**
When the SYSTEM POWER switch is turned ON, the settings on the display panel are automatically reset the original setting.

2 **SPEAKERS selector**

3 **INPUT BALANCE control**

4 **Display window**

5 **Function selectors**

6 **BALANCE control**

7 **MASTER VOLUME control**

8 **DBFB switch**

9 **Graphic equalizer controls**

10 **REAR LEVEL buttons**

11 **SURROUND MODE selectors**

12 **HEADPHONES jack**

13 **Remote control sensor**

Remote Commander

14 **MODE selector**
Selects the function mode on the remote commander.
1: To select the function indicated in light gray such as DECK, DAT, CD player and surround mode of amplifier.
2: To select the functions indicated in blue such as VTR, LDP (Laser disc player) and TV.

15 **CDP/LDP control section**
The combined CD/LD player can be controlled with LDP position.
►: Play
II: Pause
■: Stop
D (disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)
◄◄/►►: Manual search (only for LD player)
I◄◄/►►I: Locates a desired selection.

16 **Amplifier/TV section**
TV/VIDEO button: Selects the input signal of the TV. (for TV)
Program number (1 to 0) and ENTER buttons: Select the channel. (for TV)
SURROUND mode selectors (for the amplifier)
ON/OFF: Turns on/off the surround mode.
MODE: Selects the surround mode.
FUNCTION selectors: Select an input source of the amplifier. (for the amplifier)
REAR VOL /TV VOL +/– buttons: Control the volume of rear speakers (surround level) or TV.
DBFB button: Turns on/off the DBFB (Dynamic Bass Feed Back). (for the amplifier)
MASTER VOL +/– buttons: Control the amplifier volume. (for the amplifier)

17 **Tuner/TV section**
SHIFT and TUNER PRESET/ TV CH (channel) +/– buttons: Select a preset channel of the tuner or a channel of the TV.

18 **Tape deck/VCR control section**
DECK/VTR selector
DECK A,B, and DAT: Selects A,B, or DAT deck.
VTR 1, 2, and 3: Selects VCR type.
(1: Betamax VCRs, 2: 8 mm VCRs, 3: VHS VCRs)

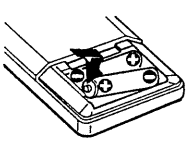
II: Pause
■: Stop
◄◄/►►: Fast winding
◄/►: Play
● (REC): Recording
ANT (antenna) TV/VTR button: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.
VTR CH (channel) +/– buttons: Select channel on the VCR.

19 **Power control section**
SYSTEM OFF button: Turns off the power of the whole system: LDP, VTR, TV, and AUDIO.
LDP/VTR1/VTR2/VTR3/TV/AUDIO POWER buttons: Control the power of each unit. (The VTR button can be operative only

Installing Batteries

1

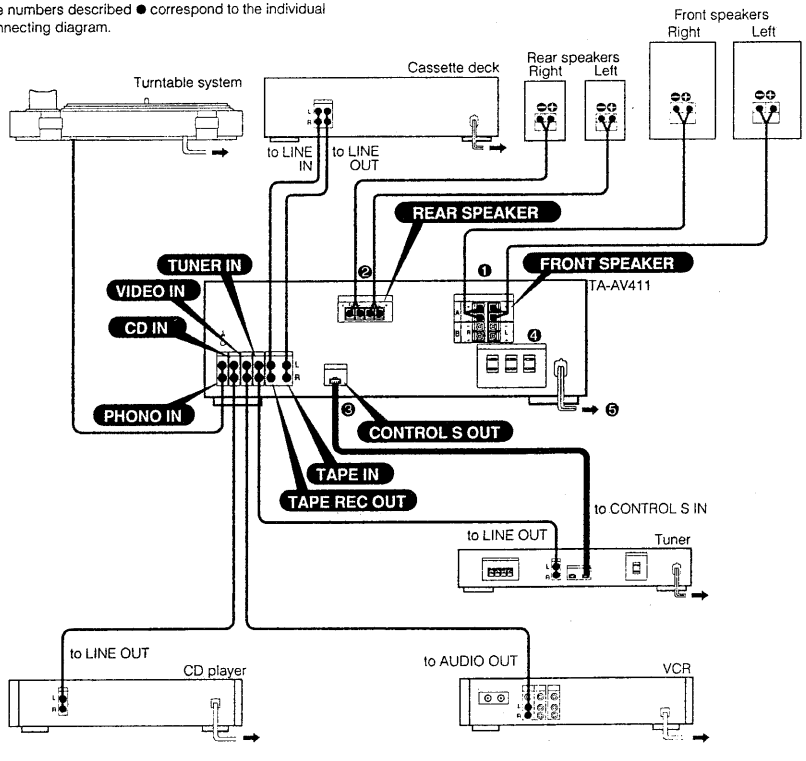
2 Two size-AA (R6) batteries



Connections

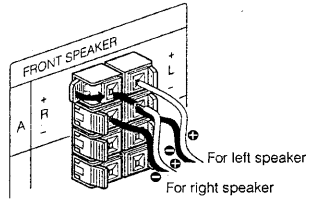
- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for the left channel (L).
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- The + and – cords of the speaker systems should be correctly connected to the + and – terminals of the amplifier respectively.

The numbers described ● correspond to the individual connecting diagram.



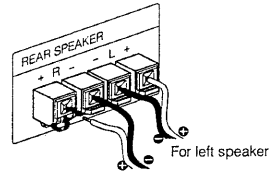
❶ Front speakers

You can connect two pairs of speaker systems: system A and system B.
They can be selected individually or simultaneously with the selector on the front panel.



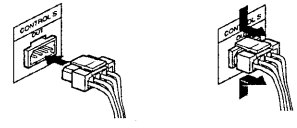
❷ Rear speakers

Connect a pair of rear speaker systems for enjoying surround sound.



❸ Flat remote control cord (not supplied)

Connect to the CONTROL S IN jack of other Sony equipment with the flat remote control cord for whole audio system remote control.



❹ AC OUTLETs (SWITCHED)

Use these to power audio components whose power consumption is less than the wattage indicated on the AC outlets.
These outlets are controlled by the POWER switch.

CAUTION
Do not connect any electrical home appliances such as an electric iron, fan, TV or other high wattage equipment to these AC outlets.

❺ Power cord

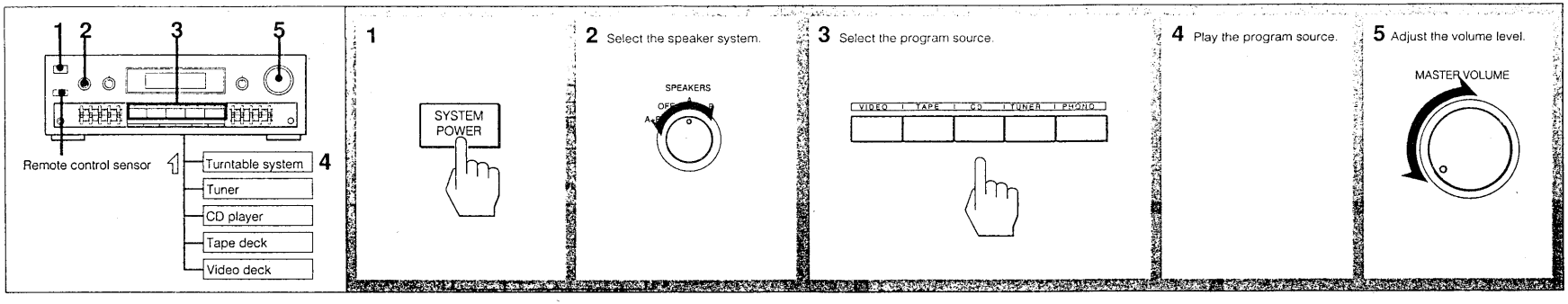
Connect to a wall outlet.

Note on speaker impedance and power capacity
This amplifier is designed to work best with speakers of nominal impedance from 8 to 16 ohms. Be sure to use a speaker system with adequate power handling capabilities.

To connect a video tape recorder
Use the following cables.

For stereo video tape recorder	
RK-C74	phono plug x 2 – phono plug x 2
For monaural video tape recorder	
RK-G105	mini plug x 1 – phono plug x 2
RK-C72	phono plug x 1 – phono plug x 2

Listening to a Program Source



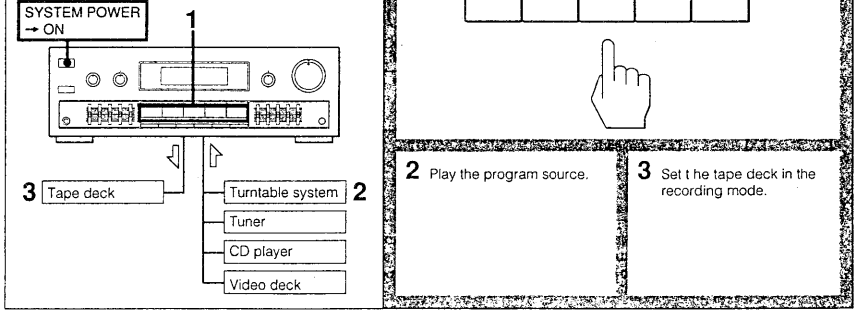
Selecting the speaker system
To drive speaker system A: Set SPEAKERS to "A".
To drive speaker system B: Set SPEAKERS to "B".
To drive both speakers: Set SPEAKERS to "A + B".
For headphone listening only: Set SPEAKERS to "OFF".

Notes
- When SPEAKERS is set to "A + B", two pairs of speaker systems must be connected. Otherwise, no sound can be heard.
- The sound of rear (surround) speakers are not heard from the headphone.

Selecting the program source
For a record program, press PHONO.
For a tuner program, press TUNER.
For a CD program, press DC.
For a tape program, press TAPE.
For a video sound program, press VIDEO.

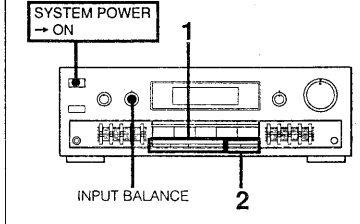
Recording

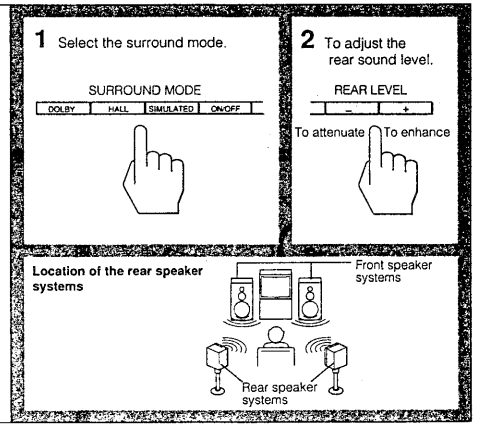
You can record any program source using a tape deck connected to the TAPE jacks.
The BALANCE, VOLUME, GRAPHIC EQUALIZER controls and the DBFB switch have no effect on recording.



Enjoying Surround Sound

The surround sound will be effective when surround speakers (optional) are connected to the SURROUND SPEAKER terminals on the rear panel.





Selecting surround modes
DOLBY (Dolby Surround)
Expands sound just like listening to it in a movie theater.
HALL (Hall Surround)
Provides reverberation effect that is produced in a concert hall.
SIMULATED (Simulated Surround)
Gives a simulate stereo effect to monaural sound.
OFF (To disable surround effect)
The normal sound without surround effect will resume.

Note
No sound will be heard from the surround speakers, unless one of the Surround modes is selected.

Adjusting the INPUT BALANCE control
In the DOLBY SURROUND mode adjust this control so that the (audio) volume of the surround speaker is minimized during the scene of conversation (where the sound is monaural).

SECTION 2
DIAGRAMS

2-1.Description on IC101 (μ PD75206-717-3BE)

Pin	Port	I/O	ACT	RESET	Outside	
1	RESET	I				DIGIT9
2	t0	O	H	High	L	DIGIT8
3	t1	O	H	High	L	DIGIT7
4	t2	O	H	High	L	DIGIT6
5	t3	O	H	High	L	DIGIT5
6	t4	O	H	High	L	DIGIT4
7	t5	O	H	High	L	DIGIT3
8	t6	O	H	High	L	DIGIT2
9	t7	O	H	High	L	DIGIT1
10	t8	O	H	High	L	NC
11	t9	O	H	High	L	DBFB
12	t10	O	H	High	L	FRONT MUTE
13	t11	O	H	High	L	REAR MUTE
14	t12	O	H	High	L	DRLC CONTROL
15	t13	O	H	High	L	DRLC SW A
16	t14	O	H	High	L	DRLC SW B
17	t15	O	H	High	L	−30V
18	Vload		−	High		−4V
19	Vpre		−	High		NC
20	s9	O	H	High	L	SEG9
21	s8	O	H	High	L	SEG8
22	s7	O	H	High	L	SEG7
23	s6	O	H	High	L	SEG6
24	s5	O	H	High	L	SEG5/KEY OUT5
25	s4	O	H	High	L	+5V
26	V_{DD}			High		SEG4/KEY OUT4
27	s3	O	H	High	L	SEG3/KEY OUT3
28	s2	O	H	High	L	SEG2/KEY OUT2
29	s1	O	H	High	L	SEG1/KEY OUT1
30	s0	O	H	High	L	KEY IN 1
31	p00	I	H	In	L	KEY IN 2
32	p01	I	H	In	L	

High : High − impedance status
In : Input status

Pin	Port	I/O	ACT	RESET	Outsided	
33	p02	I	H	In	L	KEY IN 3
34	p03	I	H	In	L	KEY IN 4
35	p10	I	H	In		RM − 1
36	p11	I	H	In		RM − 2
37	p12	I	L	In		DRLC SW
38	p13	I	L	In		POWER SW
39	p20	O	H	In	L	ST LC7535/LC7822
40	p21	O	L	In	L	ST LV1001M
41	p22	O	H	In	L	SV MSM59371
42	p23	O	H	In	L	VOL +
43	p30	O	H	In	L	VOL −
44	p31	O	H	In	L	VIDEO A
45	p32	O	H	In	L	VIDEO B
46	p33	O	L	In	L	TC PAUSE/PRO LOGIC
47	p60	O	H	In	L	STOP
48	p61	O	H	In	L	CLOCK
49	p62	O	H	In	L	DATA
50	p63	O	H	In	L	FRONT SP relay
51	p40	O	L	In	L	RECOUT SW V1
52	p41	O	L	In	L	RECOUT SW V2
53	p42	O	L	In	L	RECOUT SW TAPE
54	p43	O	H	In	L	POWER RELAY
55	ppo	O	H	In	L	REAR SP relay
56	x1					
57	x2					
58	Vss					
59	xt1					
60	zt2					
61	p50	O	H	In		DRLC READY
62	p51	O	H	In		MIX SW
63	p52	O	H	In		DOLBY SW
64	p53	O	H	In		SIM SW

High : High-impedance status

In : Input status

2-2. Key operation

Key input has priority over serial input.

(1) Setting

KEY OUT / KEY IN	S0	S1	S2	S3	S4
P00	PHONO	TUNER	CD	TAPE	VIDEO01
P02	DBFB	DELAY	DOLBY	HALL	SIMULATED

Note 1. SURROUND ON/OFF.

(2) FUNCTION Key (PHONO,TUNER, CD, TAPE, VIDEO1-4) operation
These keys execute operations below when pressed.
FUNCTION IC ·····Serial data
REC OUT SW ·····Static data
VIDEO SW·····Static data
FRONT MUTE·····One shot
REAR MUTE ·····One shot

(3) REAR MUTE PORT
The port is turned to "H" by switching to SURR ON, MODE or FUNCTION.
(Key input, Serial input)
Also the port is "H" three seconds after POWER ON is selected.
REAR MUTE PORT has priority over other ports to output when POWER OFF is selected and operates when SUB VOLUME is turned to ∞.
However there is no output for the port switching the main FUNC TION when DRLC ON is selected.

(4) DRLC CONTROL PORT (used for SP relay too)
The port is turned to "H" only when DRLC ON is selected. (Key input, Serial input)

(5) POWER RELAY PORT
The port is turned to "H" when either POWER ON or DRLC ON is selected. (Key input, Serial input RM-1, RM-2) Both MAIN and SUB are turned OFF when ALL OFF serial input is selected.

(6) DOLBY PORT
The port is turned to "L" HALL or SIM is selected. (Key input, Serial input)

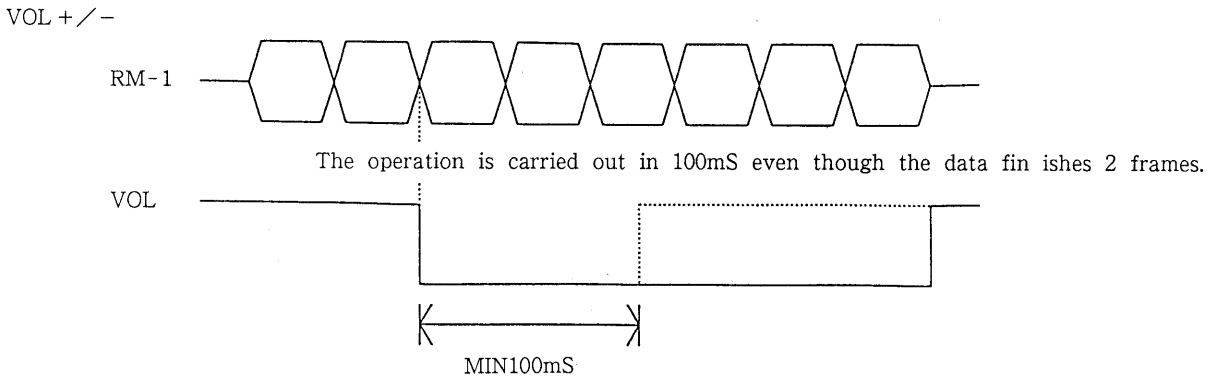
(7) SIM PORT
The port is turned to "L" when SIM is selected. (Key input, Serial input)

The relation between Switch ON and FUNCTION

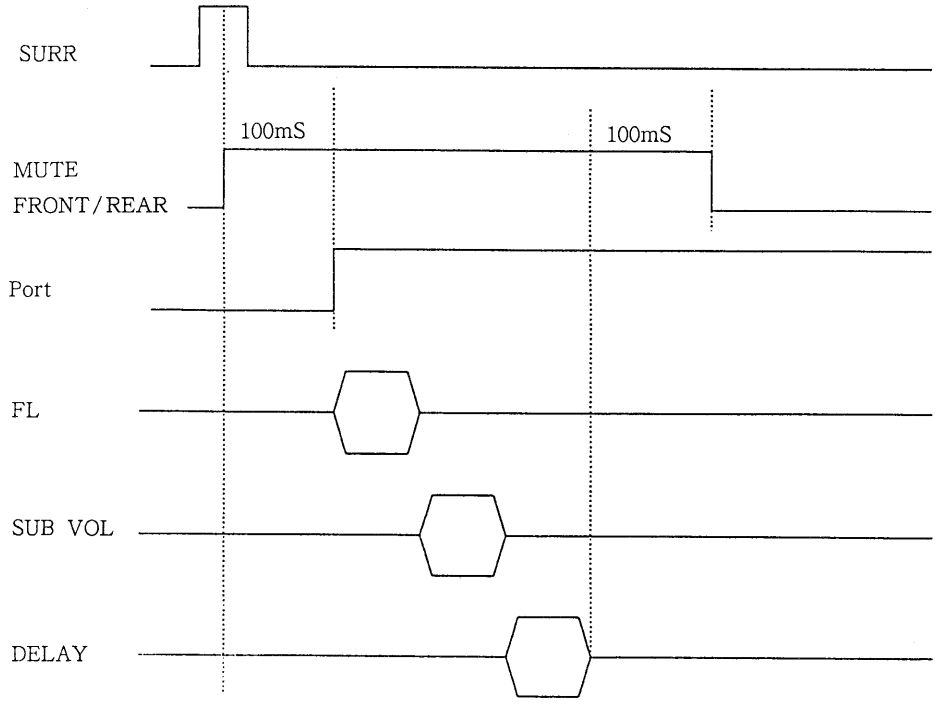
SW	TA-AX311/AV411
1. PHONO	10000001
2. TUNER	01000001
3. CD	00100001
4. TAPE	00010000
5. VIDEO 3	none
6. VIDEO 2	none
7. VIDEO 1	00000011
8. VIDEO 4	none

Serial data to SURR IC (LV1001M)
The delay time is controlled with 8-bit data (short mode).
The delay time is decided by the count time.
(Address data) - FFFF (short mode)
15mS ·····8AB0h
20mS ·····63C0h
30mS ·····15A0h

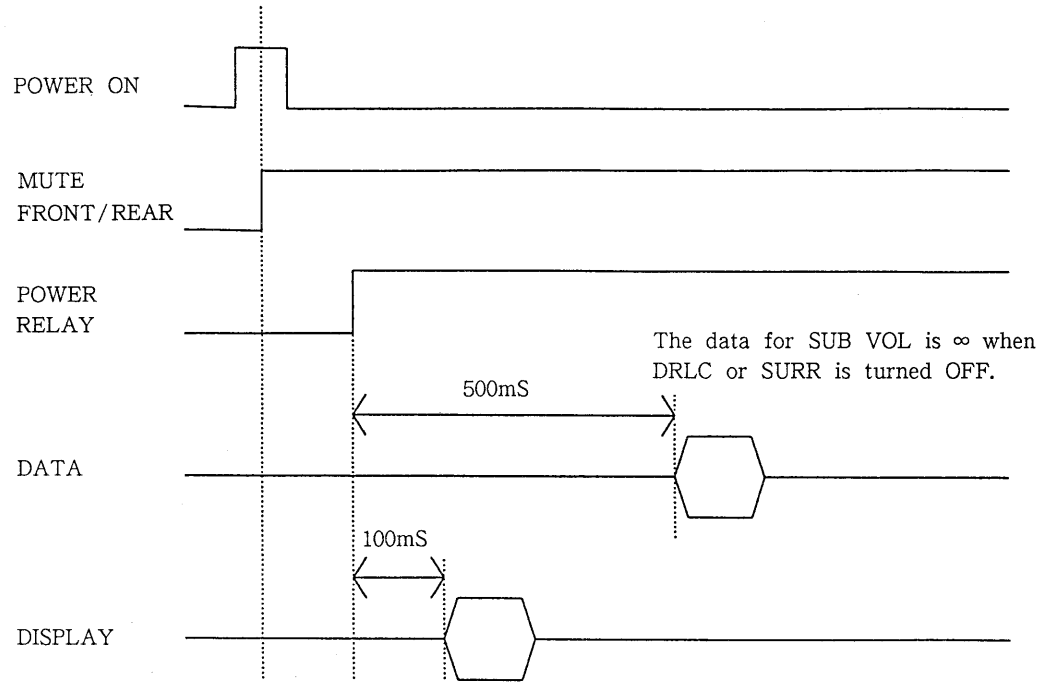
Timing chart



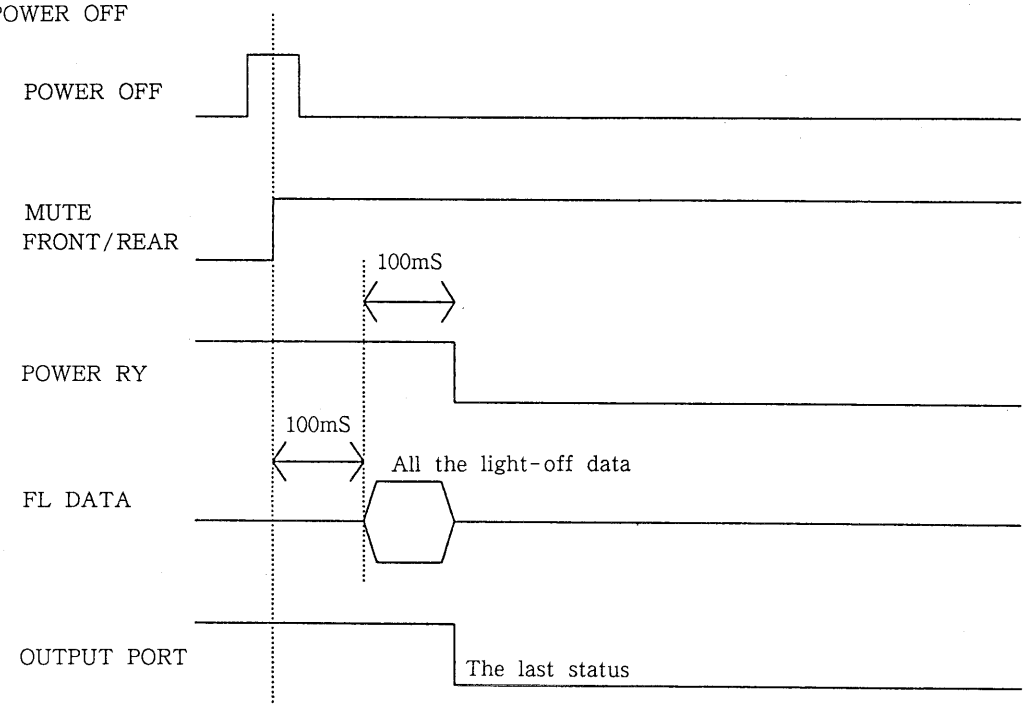
MUTE must be switched 100mS forward or backward during SURR MODE switching (including SURR/OFF switch).



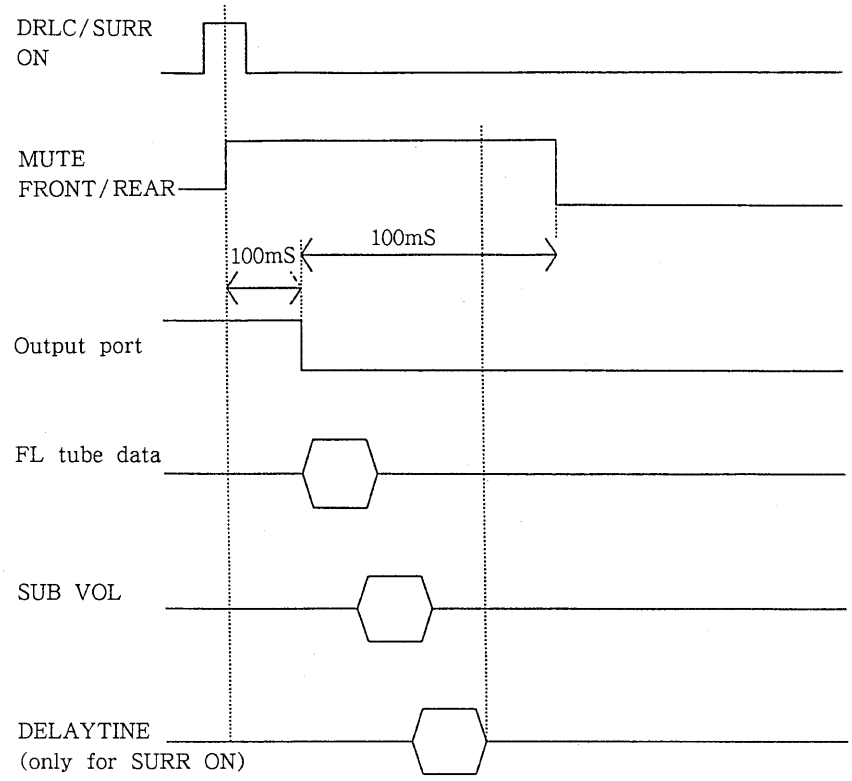
POWER ON (The same operation when starting the buck up system.)



POWER OFF

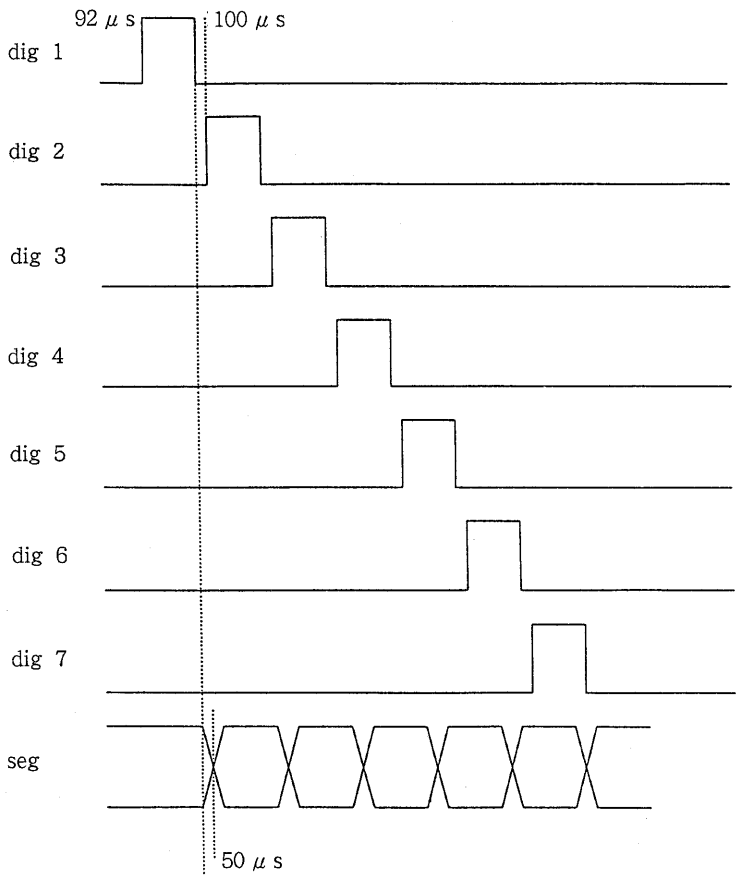


DRLC←→SURR mutual switching

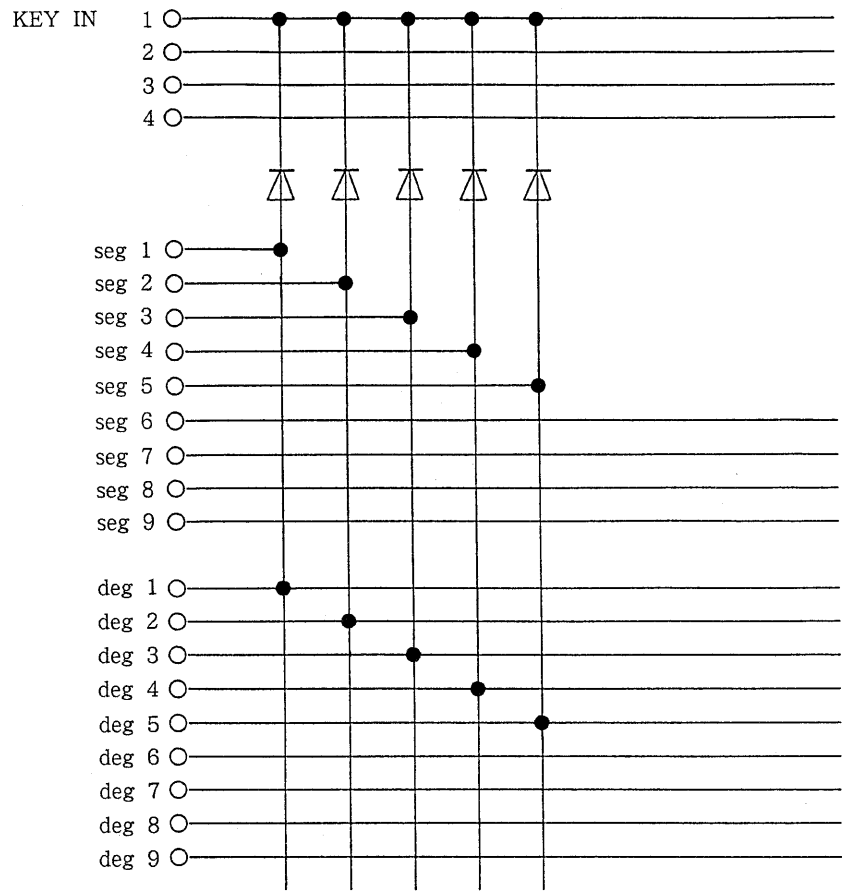


Display operation

1. FL tube start timing



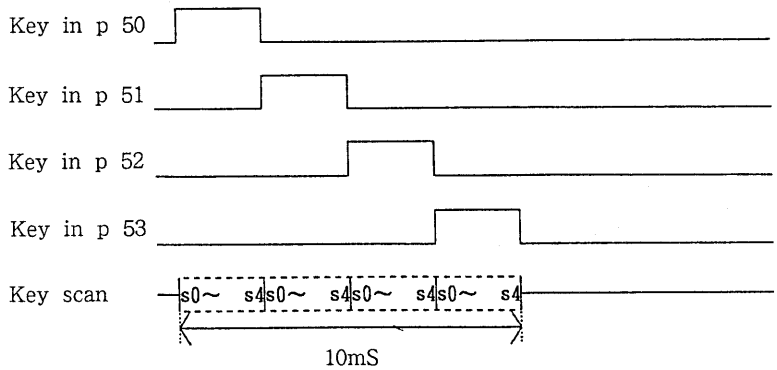
2-3. MATRIX for FL tube and KEY IN



Key scan operation

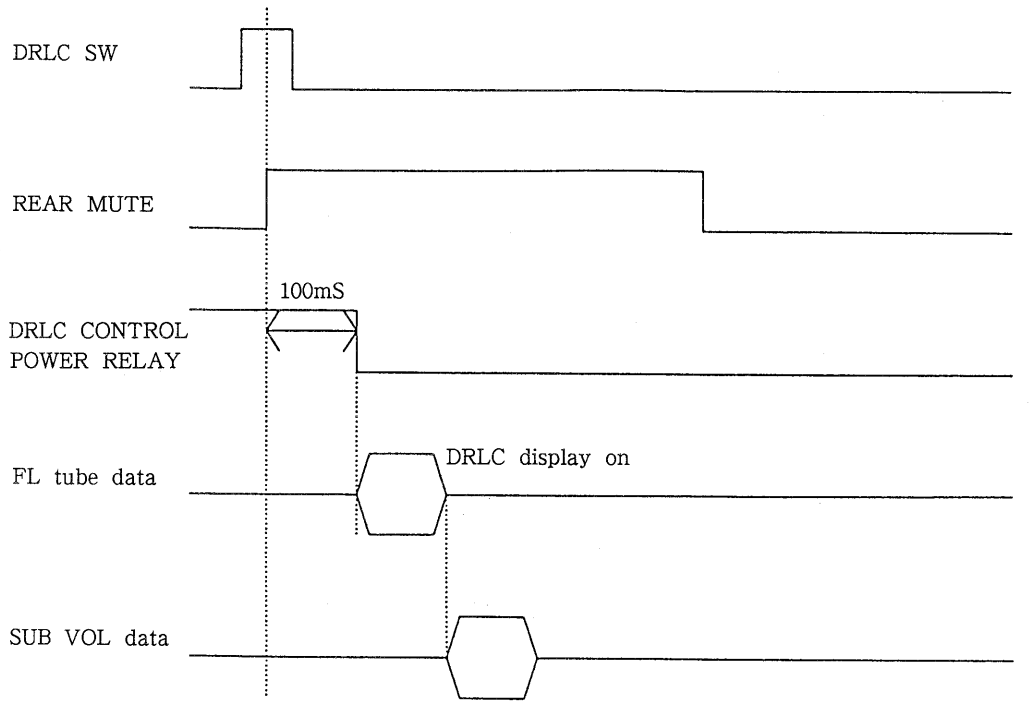
① Key input has priority over serial input.
② If a key is input 10mS after the same key was input, this is recognized as a key input and registers five times.
③ Double-pressing is not accepted, one pressing first and being replaced by a second has priority.
④ No keys can be input during POWER OFF.
⑤ No keys can be input for 1 Second after POWER ON.

Key scan operation

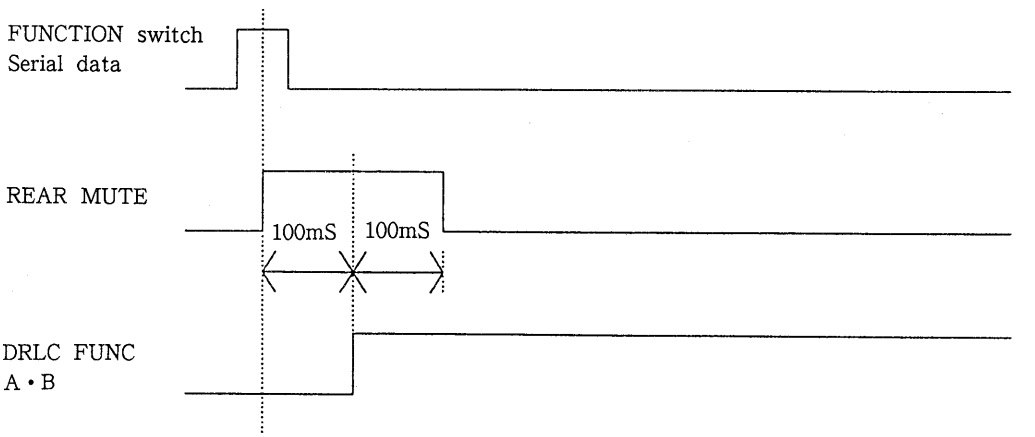


Timing chart

DRLC



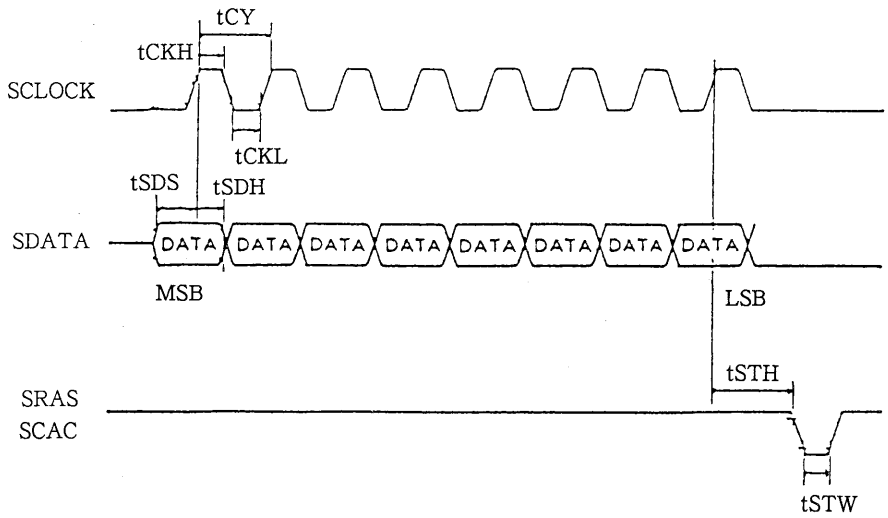
DRLC FUNCTION



2-4.Description on IC303 (LV1001M)

Pin No.	Explanations
1	De-couple capacitor for threshold voltage
2, 64	Capacitor for smoothing of rectifier output
3	Capacitor for sliding band filter and Delayed output
4, 62	Capacitor for sliding band filter
5, 61	Capacitor for pre-emphasis
6, 60	Input filter for rectifier
7, 57	Input filter for rectifier
8	Reference voltage
9	Reference voltage
10	Mute control
11	Vcc
12	Output for V_{DD}
13	Clock input for serial input, data input for parallel input mode
14	Data input for serial input, data input for parallel input mode
15	Column address selection for serial input, data input for parallel input mode
16	Row address selection for serial input, data input for parallel input mode
18 to 32	Connection to memory device
24	Vss
33	X'tal resonator for oscillator
34	X'tal resonator for oscillator
35	Long or Short mode selection
36	Serial or Parallal mode selection
37	For test mode
38	Smoothing for NR rectifier
39	Smoothing for NR rectifier
40	Capacitor for weighting on side chain path
41	Input for variable resistor
42	NR output
43	7kHz low pass filter output
44	Input for NR
45	Capacitor for de-couple on NR
46	Delay output or NR output
47	Input for mute circuit
48	Output for mute circuit
49	Output for 7kHz low pass filter
50	Input for 7kHz low pass filter
51	GND
52	Input for right channel
53	Input for left channel
54	Capacitor for de-couple on Fixed matrix output
55	Noise shaping and delay input
56	Noise shaping output
57	Delay input signal mode select switch (L + R/L − R)
58	Filter for supply voltage on comparator
63	Capacitor for sliding band filter and local decoder output

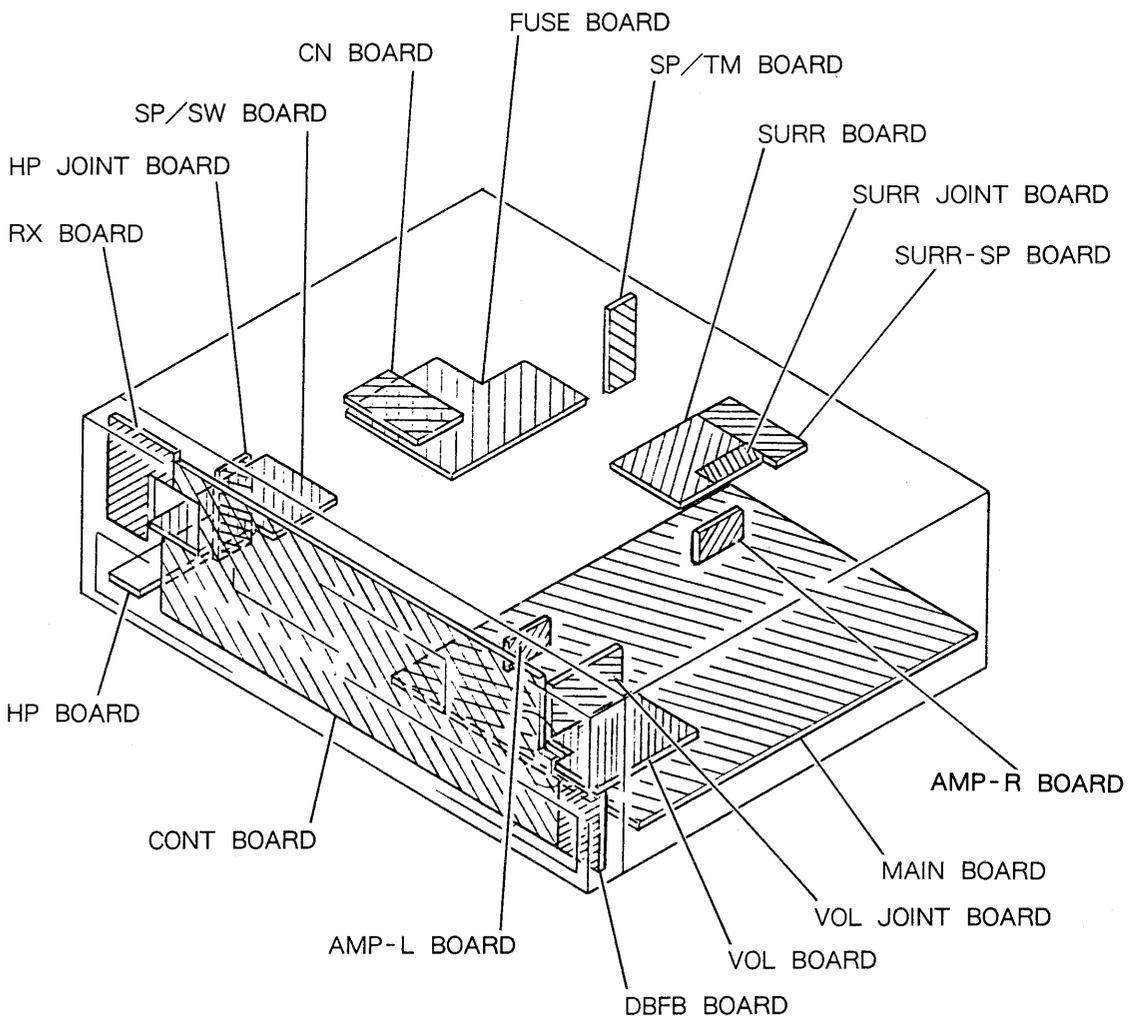
Input Address Port Timing
SHORT MODE



In case of short mode, delay time setting is set in above timing. The date loaded to SDATA is written on the leading edge timing. In order to select that the data latch for row address strobe or column address strobe is loaded, SRAS or SCAS port is controlled.
When changing delay time setting, meaningless data on a memory are read. this causes the pop noise. when SRAS or SCAS is controlled, mute circuit (pin 55 is input, pin 56 is output) is activated. Mute time is the same as the delay time which is set at that time. (Serial data input mode only, On parallel data input mode, mute circuit is activated by using the mute control port pin 18.)

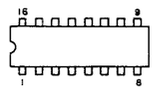
On long mode, input data number is 9, the way of setting delay time is same.

2-5. CIRCUIT BOARDS LOCATION



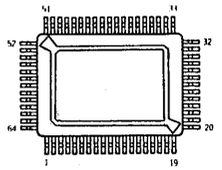
2-6. SEMICONDUCTOR LEAD LAYOUTS

CXA1100P
CXA1198AP
M5226P
TC4051BPHB



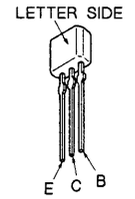
(TOP VIEW)

μ PD75206GF-717-3BE

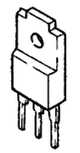


(TOP VIEW)

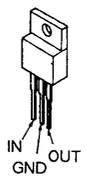
2SA1175-HFE
2SC2785-HFE



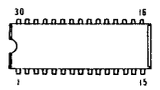
2SA1684-LK
2SC4431-LK
2SD2012



M5F7805L
M5F7812L



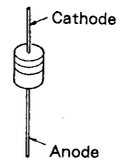
LC7822



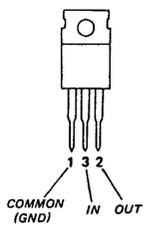
(TOP VIEW)

DTA124ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES
2SC2603-FE

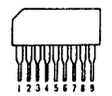
HZS6C3L
HZS6C2L
HZS30-1L



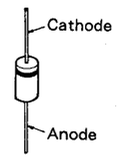
M5F7912L



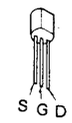
IR2E31A



10E2N
1S1585

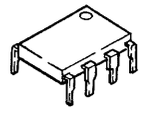


2SK246-Y



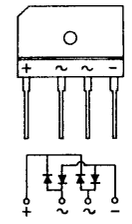
LA3160
M5128AL
μ PC1237HA

LB1639

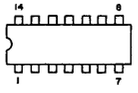


2SA733-QP
2SC945-QP
2SC1815-Y

RBA-402
RBV-602-01

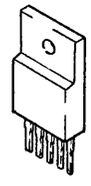


LC4966
MC14066BCP
TC4001BP
μ PD4011BC

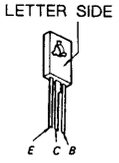


(TOP VIEW)

SI-18752N



2SC2682-QPE



SEL2210S-CD

2-7. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	H-7	Q405	J-19
D102	H-7	Q451	I-6
D103	H-8	Q452	I-6
D104	H-7	Q453	G-4
D105	J-9	Q601	D-31
D106	J-7	Q701	J-28
D107	J-11	Q702	J-28
D108	J-11	Q703	J-28
D109	J-11	Q704	K-28
D110	J-9	Q705	I-25
D111	I-9	Q706	J-26
D112	I-10	Q707	J-25
D113	G-7	Q708	I-26
D115	B-23	Q709	J-26
D116	G-8	Q710	H-26
D117	G-9	Q711	J-26
D601	D-31	Q712	H-26
D602	C-31	Q713	K-26
D603	C-31	Q714	I-24
D701	J-28	Q715	C-23
D702	K-28	Q716	E-23
D703	I-25	Q751	D-28
D704	I-24	Q752	D-28
D705	H-23	Q753	D-29
D706	H-23	Q754	E-28
D707	D-23	Q755	C-25
D708	E-23	Q756	D-26
D751	D-28	Q757	E-25
D752	E-28	Q758	D-26
D753	E-25	Q759	E-26
D754	E-24	Q760	C-26
D951	G-25	Q761	E-26
D952	B-26	Q762	C-26
D953	C-23	Q763	E-26
D954	C-23	Q764	E-25
D955	C-23	Q951	E-22
D956	C-23	Q952	I-37
D957	E-22	Q953	I-37
D958	I-37	Q954	J-36
D959	J-36	Q955	J-36
D960	J-36	Q956	J-36
D961	J-36	Q957	J-37
D962	J-36		
D963	I-36	IC101	H-9
D964	I-36	IC102	D-12
D965	J-37	IC301	D-19
D966	J-36	IC302	E-20
D967	J-36	IC303	G-21
		IC304	I-22
Q101	I-7	IC305	F-19
Q102	I-6	IC306	E-19
Q103	G-12	IC401	H-13
Q105	A-23	IC402	C-15
Q301	E-20	IC403	H-19
Q302	E-20	IC404	I-19
Q303	E-20	IC451	I-4
Q304	E-20	IC501	C-19
Q305	E-20	IC502	C-20
Q306	F-20	IC601	D-32
Q307	H-20	IC701	D-23
Q401	H-13	IC951	D-22
Q402	I-12	IC952	D-21
Q403	H-3	IC953	E-21

Note on Mounting Diagram:

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

2-8. SCHEMATIC DIAGRAM

Note on Schematic Diagram:

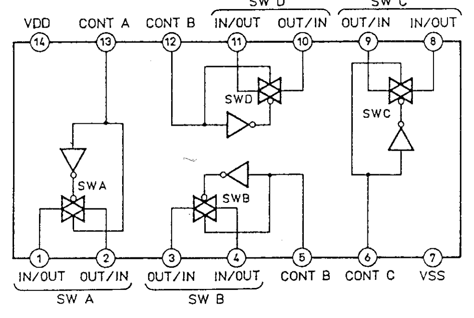
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

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

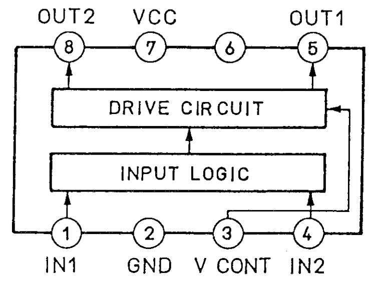
- +B : B+ Line
- +B : B− Line
  no mark: No-signal, PHONO MODE
- Voltages are taken with a VOM (input impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : PHONO

2-9. IC BLOCK DIAGRAMS

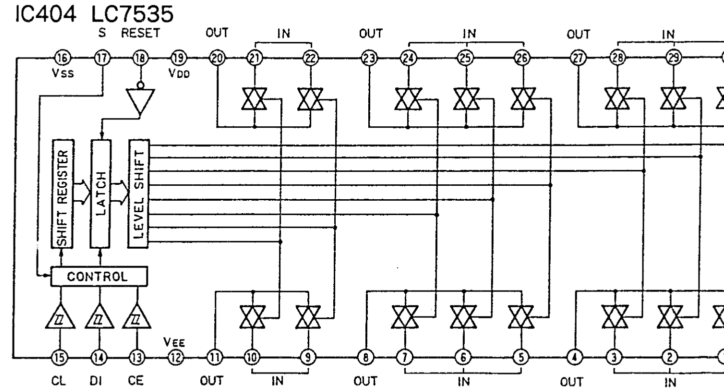
IC302 LC4966



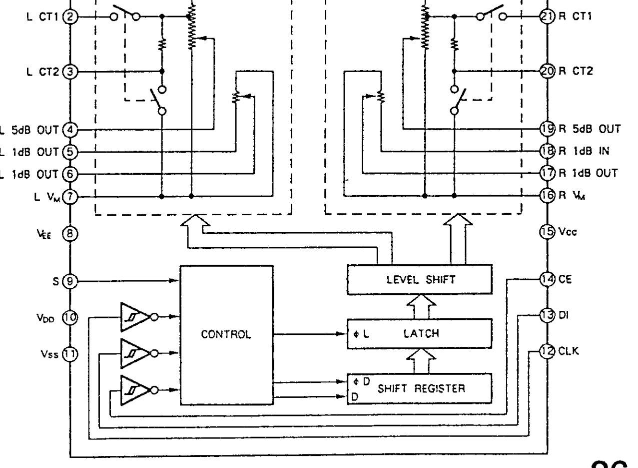
IC402 LB1639



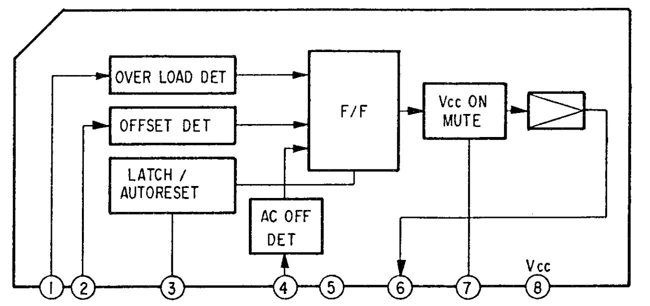
IC404 LC7535



IC502 LC7822



IC701 μ PC1237HA



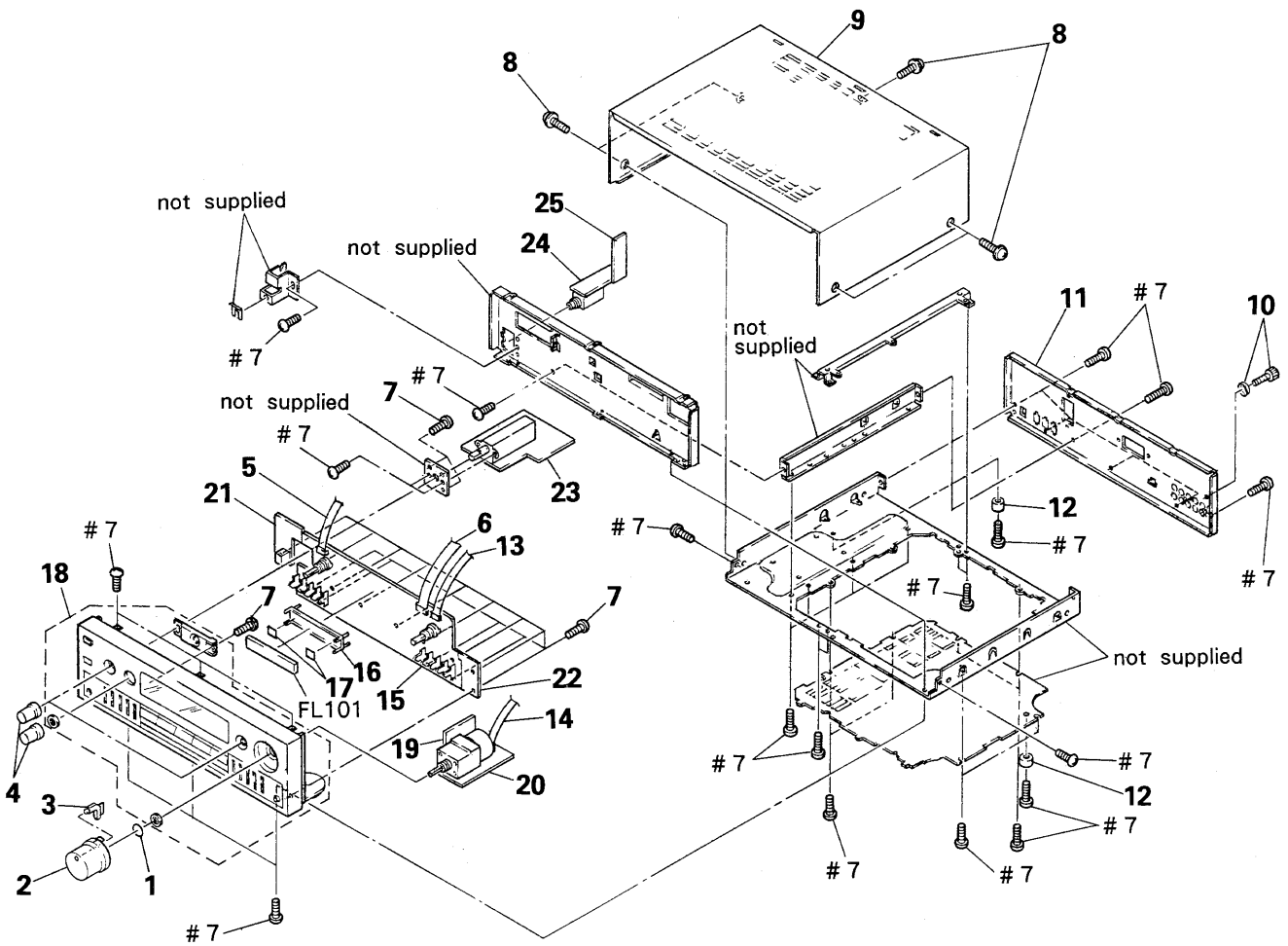
SECTION 3
EXPLODED VIEWS

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 is 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.

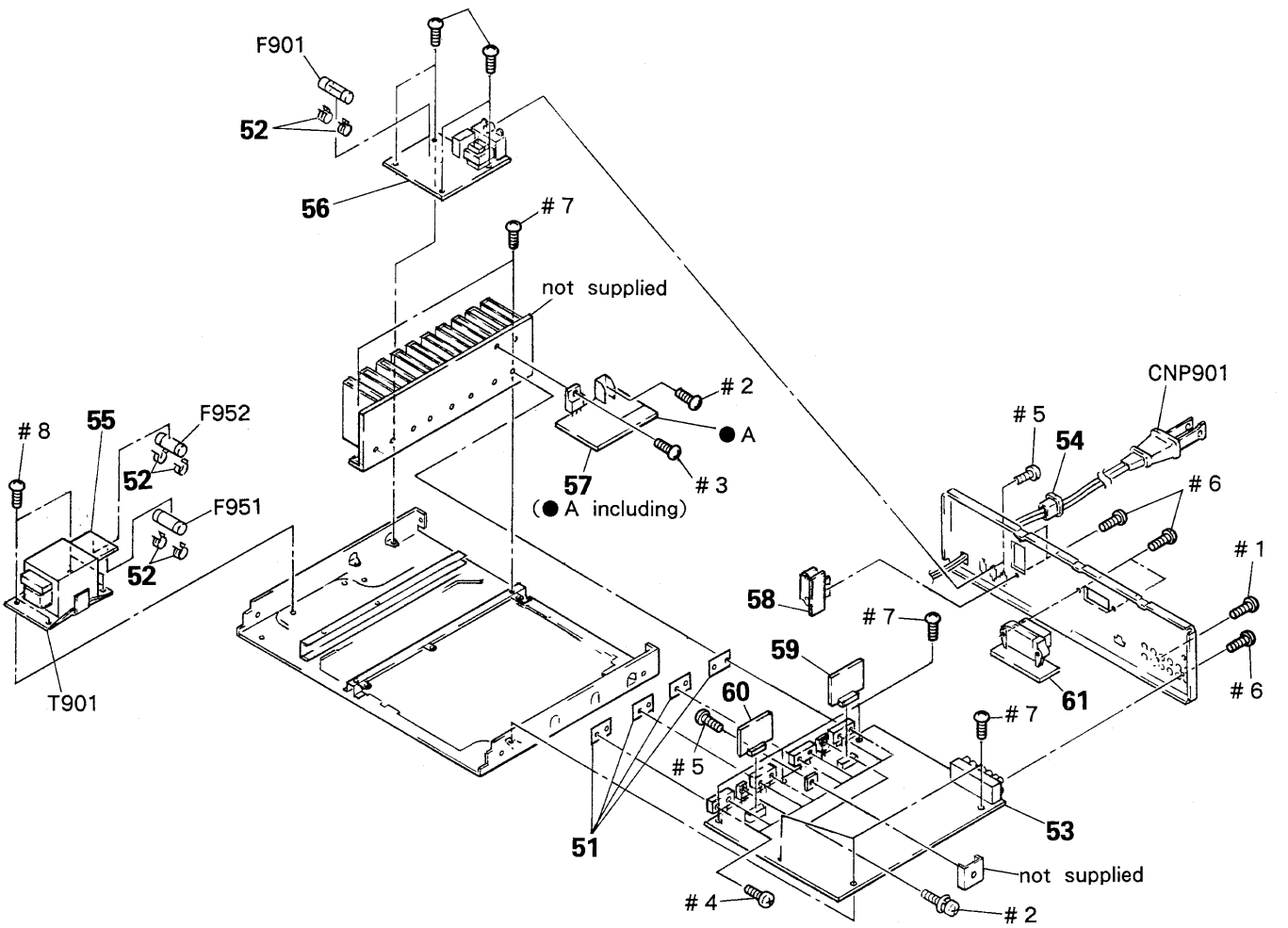
3-1. OVERALL SECTION 1



Ref. No.	Part No.	Descriptiion	Remark
1	3-350-426-01	SPRING, RING	
2	4-943-091-01	KNOB (VOL)	
3	4-943-092-01	PLATE(VOL), LIGHT GUIDE	
4	4-943-420-01	KNOB (DIA. 19)	
5	1-590-486-11	WIRE, FLAT TYPE (7 CORE)	
6	1-590-487-11	WIRE, FLAT TYPE (17 CORE)	
7	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
8	3-704-366-01	SCREW (CASE) (M3X8)	
9	4-931-031-11	CASE	
10	3-706-165-00	SCREW	
11	* 4-943-458-01	PANEL, BACK	
12	X-4941-229-1	FOOT ASSY (F2112S-M)	

Ref. No.	Part No.	Descriptiion	Remark
13	1-590-538-11	WIRE, FLAT TYPE (7 CORE)	
14	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
15	* A-4341-682-A	CONT BOARD, COMPLETE	
16	* 4-943-107-01	HOLDER (FL TUBE)	
17	* 4-921-941-01	CUSHION (FL)	
18	A-4323-854-A	PANEL ASSY, FRONT	
19	* 1-638-279-11	VOL JOINT BOARD	
20	* 1-638-278-11	VOL BOARD	
21	* 1-638-277-11	RX BOARD	
22	* 1-638-280-11	DBFB BOARD	
23	* 1-638-284-11	SP SW BOARD	
24	* 1-638-285-11	HP BOARD	
25	* 1-638-286-11	HP JOINT BOARD	

3-2. OVERALL SECTION 2



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

Ref. No.	Part No.	Descriptiion	Remark
51	4-885-901-31	SHEET, RADIATION	
52	1-533-217-31	HOLDER, FUSE	
53	* A-4341-678-A	MAIN BOARD, COMPLETE	
54	* 3-703-244-00	BUSHING (2104), CORD	
55	* 1-638-273-11	CN BOARD	
56	* 1-638-276-11	FUSE BOARD	
57	* 1-638-282-11	SURR BOARD (A including)	
58	* 1-638-287-11	SP, TM, BOARD	
59	* 1-638-272-11	AMP-R BOARD	
60	* 1-638-271-11	AMP-L BOARD	
61	* 1-638-281-11	SURR SP BOARD	
CNP901	⚠1-551-478-00	CORD, POWER	
F901	⚠1-532-749-11	FUSE, GLASS TUBE(6A)	
F951	⚠1-576-107-11	FUSE(3.15 A)	
F952	⚠1-576-107-11	FUSE (3.15 A)	
T901	⚠1-450-370-11	TRANSFORMER, POWER	

SECTION 4 AMP-L AMP-R CN

ELECTRICAL PARTS LIST

NOTE :

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

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

- Due to standardization, replacements in the parts list may be defferent from the parts specified in the diagrams or the components used on the set.
- −XX, −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... : μA... , uPA... , μPA... , uPB... , μPB... , uPC... , μPC... , uPD..., μPD...
- CAPACITORS :
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description				Remarks
	* 1-638-271-11	AMP-L BOARD				
		**********				
		⟨ CAPACITOR ⟩				
C703	1-124-477-11	ELECT	47uF	20%	25V	
C704	1-124-477-11	ELECT	47uF	20%	25V	
C705	1-162-292-31	CERAMIC	680PF	10%	50V	
		⟨ CONNECTOR ⟩				
CN702	1-560-943-00	PIN, CONNECTOR 9P				
		⟨ DIODE ⟩				
D701	8-719-933-40	DIODE HZS6C2L				
D702	8-719-987-63	DIODE 1N4148M				
		⟨ TRANSISTOR ⟩				
Q701	8-729-620-18	TRANSISTOR 2SA979-FG				
Q702	8-729-108-14	TRANSISTOR 2SA988-F				
Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q704	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		⟨ RESISTOR ⟩				
R702	1-249-435-11	CARBON	33K	5%	1/4W	
R703	1-249-408-11	CARBON	180	5%	1/4W	
R704	1-249-421-11	CARBON	2.2K	5%	1/4W	
R705	1-249-434-11	CARBON	27K	5%	1/4W	
R706	1-249-426-11	CARBON	5.6K	5%	1/4W	
R707	1-249-429-11	CARBON	10K	5%	1/4W	
R708	1-249-435-11	CARBON	33K	5%	1/4W	
R709	1-249-411-11	CARBON	330	5%	1/4W	
R710	⚠1-247-704-11	CARBON	220	5%	1/4W	
R711	⚠1-247-704-11	CARBON	220	5%	1/4W	
**********						
	* 1-638-272-11	AMP-R BOARD				
		**********				
		⟨ CAPACITOR ⟩				
C753	1-124-477-11	ELECT	47uF	20%	25V	
C754	1-124-477-11	ELECT	47uF	20%	25V	
C755	1-162-292-31	CERAMIC	680PF	10%	50V	
		⟨ CONNECTOR ⟩				
CN703	1-560-943-00	PIN, CONNECTOR 9P				
		⟨ DIODE ⟩				
D751	8-719-933-40	DIODE HZS6C2L				
D752	8-719-987-63	DIODE 1N4148M				
		⟨ TRANSISTOR ⟩				
Q751	8-729-620-18	TRANSISTOR 2SA979-FG				
Q752	8-729-108-14	TRANSISTOR 2SA988-F				
Q753	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q754	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		⟨ RESISTOR ⟩				
R752	1-249-435-11	CARBON	33K	5%	1/4W	
R753	1-249-408-11	CARBON	180	5%	1/4W	
R754	1-249-421-11	CARBON	2.2K	5%	1/4W	
R755	1-249-434-11	CARBON	27K	5%	1/4W	
R756	1-249-426-11	CARBON	5.6K	5%	1/4W	
R757	1-249-429-11	CARBON	10K	5%	1/4W	
R758	1-249-435-11	CARBON	33K	5%	1/4W	
R759	1-249-411-11	CARBON	330	5%	1/4W	
R760	⚠1-247-704-11	CARBON	220	5%	1/4W	
R761	⚠1-247-704-11	CARBON	220	5%	1/4W	
**********						
	* 1-638-273-11	CN BOARD				
		********				
		⟨ FUSE ⟩				
F951	⚠1-576-107-11	FUSE (3.15A)				
F952	⚠1-576-107-11	FUSE (3.15A)				
		⟨ RESISTOR ⟩				
R951	⚠1-217-469-00	FUSIBLE	1	5%	1W	F
R952	⚠1-217-469-00	FUSIBLE	1	5%	1W	F
**********						

CONT

Ref. No.	Part No.	Description				Remarks
	* A-4341-682-A	CONT BOARD, COMPLETE **********				
	* 1-638-275-11	CONT BOARD				
	1-533-217-31	HOLDER, FUSE				
	1-569-132-11	PIN, CONNECTOR 7P				
	4-352-844-01	PIN, LEAD, COATING				
	* 4-921-941-01	CUSHION (FL)				
	* 4-943-107-01	HOLDER (FL TUBE)				
		< CAPACITOR >				
C101	1-124-902-00	ELECT	0.47uF	20%	50V	
C102	1-130-495-00	MYLAR	0.1uF	5%	50V	
C103	1-162-596-00	CERAMIC	0.022uF			
C104	1-124-443-00	ELECT	100uF	20%	10V	
C105	1-130-495-00	MYLAR	0.1uF	5%	50V	
C106	1-130-495-00	MYLAR	0.1uF	5%	50V	
C108	1-136-907-00	ELECT	10uF	5%	50V	
C109	1-136-907-00	ELECT	10uF	5%	50V	
C401	1-124-903-11	ELECT	1uF	20%	50V	
C402	1-124-902-00	ELECT	0.47uF	20%	50V	
C403	1-124-254-00	ELECT	0.68uF	20%	50V	
C404	1-130-490-11	MYLAR	0.039uF	5%	50V	
C405	1-124-464-11	ELECT	0.22uF	20%	50V	
C406	1-130-484-00	MYLAR	0.012uF	5%	50V	
C407	1-130-493-00	MYLAR	0.068uF	5%	50V	
C408	1-130-478-00	MYLAR	0.0039uF	5%	50V	
C409	1-130-487-00	MYLAR	0.022uF	5%	50V	
C410	1-164-086-11	CERAMIC	0.0012uF	10%	50V	
C411	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C412	1-162-289-31	CERAMIC	390PF	10%	50V	
C413	1-124-907-11	ELECT	10uF	20%	50V	
C414	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
C415	1-136-169-00	FILM	0.22uF	5%	50V	
C417	1-124-907-11	ELECT	10uF	20%	50V	
C451	1-124-903-11	ELECT	1uF	20%	50V	
C452	1-124-902-00	ELECT	0.47uF	20%	50V	
C453	1-124-254-00	ELECT	0.68uF	20%	50V	
C454	1-130-490-11	MYLAR	0.039uF	5%	50V	
C455	1-124-464-11	ELECT	0.22uF	20%	50V	
C456	1-130-484-00	MYLAR	0.012uF	5%	50V	
C457	1-130-493-00	MYLAR	0.068uF	5%	50V	
C458	1-130-478-00	MYLAR	0.0039uF	5%	50V	
C459	1-130-487-00	MYLAR	0.022uF	5%	50V	
C460	1-164-086-11	CERAMIC	0.0012uF	10%	50V	
C461	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C462	1-162-289-31	CERAMIC	390PF	10%	50V	
C463	1-124-907-11	ELECT	10uF	20%	50V	
C464	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
		< CONNECTOR >				
CN101	* 1-568-850-11	SOCKET, CONNECTOR 7P				
CN102	* 1-565-480-11	CONNECTOR, BOARD TO BOARD 4P				
CN104	1-568-860-11	SOCKET, CONNECTOR 17P				
CN202	* 1-561-651-00	SOCKET, CONNECTOR 7P				
CN401	* 1-568-850-11	SOCKET, CONNECTOR 7P				
CN402	* 1-561-651-00	SOCKET, CONNECTOR 7P				

Ref. No.	Part No.	Description				Remarks
		< DIODE >				
D101	8-719-987-63	DIODE	1N4148M			
D102	8-719-987-63	DIODE	1N4148M			
D103	8-719-987-63	DIODE	1N4148M			
D104	8-719-987-63	DIODE	1N4148M			
D105	8-719-987-63	DIODE	1N4148M			
D106	8-719-987-63	DIODE	1N4148M			
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	8-719-985-53	DIODE	HZS4ALL			
D113	8-719-985-53	DIODE	HZS4ALL			
D116	8-719-987-63	DIODE	1N4148M			
D117	8-719-987-63	DIODE	1N4148M			
		< FILTER >				
FL101	1-519-663-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC101	8-759-154-40	IC	uPD75206-717-3BE			
IC401	8-759-602-04	IC	M5226P			
IC451	8-759-602-04	IC	M5226P			
		< COIL >				
L731	* 1-420-872-00	COIL, AIR CORE				
		< TRANSISTOR >				
Q101	8-729-900-36	TRANSISTOR	DTC124ES			
Q102	8-729-900-63	TRANSISTOR	DTA124ES			
Q103	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q401	8-729-224-61	TRANSISTOR	2SK246-Y			
Q402	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q403	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q451	8-729-224-61	TRANSISTOR	2SK246-Y			
Q452	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q453	8-729-141-30	TRANSISTOR	2SC3623A-LK			
		< RESISTOR >				
R101	1-247-903-00	CARBON	1M	5%	1/4W	
R102	1-249-429-11	CARBON	10K	5%	1/4W	
R103	1-247-895-00	CARBON	470K	5%	1/4W	
R106	1-249-417-11	CARBON	1K	5%	1/4W	
R107	1-249-411-11	CARBON	330	5%	1/4W	
R108	1-249-411-11	CARBON	330	5%	1/4W	
R109	1-249-411-11	CARBON	330	5%	1/4W	
R110	1-249-411-11	CARBON	330	5%	1/4W	
R111	1-249-425-11	CARBON	4.7K	5%	1/4W	
R112	1-249-425-11	CARBON	4.7K	5%	1/4W	
R113	1-249-425-11	CARBON	4.7K	5%	1/4W	
R114	1-249-425-11	CARBON	4.7K	5%	1/4W	
R115	1-249-437-11	CARBON	47K	5%	1/4W	
R116	1-249-437-11	CARBON	47K	5%	1/4W	
R117	1-249-437-11	CARBON	47K	5%	1/4W	

CONT DBFB FUSE

Ref. No.	Part No.	Description				Remarks
R118	1-249-437-11	CARBON	47K	5%	1/4W	
R119	1-249-437-11	CARBON	47K	5%	1/4W	
R120	1-249-437-11	CARBON	47K	5%	1/4W	
R121	1-249-437-11	CARBON	47K	5%	1/4W	
R122	1-249-437-11	CARBON	47K	5%	1/4W	
R123	1-249-437-11	CARBON	47K	5%	1/4W	
R124	1-249-437-11	CARBON	47K	5%	1/4W	
R125	1-249-425-11	CARBON	4.7K	5%	1/4W	
R126	1-249-437-11	CARBON	47K	5%	1/4W	
R127	1-249-437-11	CARBON	47K	5%	1/4W	
R128	1-249-437-11	CARBON	47K	5%	1/4W	
R129	1-249-437-11	CARBON	47K	5%	1/4W	
R130	1-249-437-11	CARBON	47K	5%	1/4W	
R131	1-249-437-11	CARBON	47K	5%	1/4W	
R132	1-249-437-11	CARBON	47K	5%	1/4W	
R133	1-249-437-11	CARBON	47K	5%	1/4W	
R134	1-249-437-11	CARBON	47K	5%	1/4W	
R135	1-249-405-11	CARBON	100	5%	1/4W	
R136	1-249-405-11	CARBON	100	5%	1/4W	
R142	1-249-429-11	CARBON	10K	5%	1/4W	
R143	1-249-437-11	CARBON	47K	5%	1/4W	
R401	1-249-441-11	CARBON	100K	5%	1/4W	
R402	1-247-903-00	CARBON	1M	5%	1/4W	
R403	1-249-411-11	CARBON	330	5%	1/4W	
R404	1-249-437-11	CARBON	47K	5%	1/4W	
R405	1-249-412-11	CARBON	390	5%	1/4W	
R406	1-249-426-11	CARBON	5.6K	5%	1/4W	
R407	1-249-417-11	CARBON	1K	5%	1/4W	
R408	1-249-419-11	CARBON	1.5K	5%	1/4W	
R409	1-249-425-11	CARBON	4.7K	5%	1/4W	
R410	1-249-419-11	CARBON	1.5K	5%	1/4W	
R411	1-249-425-11	CARBON	4.7K	5%	1/4W	
R412	1-249-429-11	CARBON	10K	5%	1/4W	
R413	1-249-437-11	CARBON	47K	5%	1/4W	
R414	1-249-437-11	CARBON	47K	5%	1/4W	
R415	1-249-437-11	CARBON	47K	5%	1/4W	
R419	1-249-417-11	CARBON	1K	5%	1/4W	
R451	1-249-441-11	CARBON	100K	5%	1/4W	
R452	1-247-903-00	CARBON	1M	5%	1/4W	
R453	1-249-411-11	CARBON	330	5%	1/4W	
R454	1-249-437-11	CARBON	47K	5%	1/4W	
R455	1-249-412-11	CARBON	390	5%	1/4W	
R456	1-249-426-11	CARBON	5.6K	5%	1/4W	
R457	1-249-417-11	CARBON	1K	5%	1/4W	
R458	1-249-419-11	CARBON	1.5K	5%	1/4W	
R459	1-249-425-11	CARBON	4.7K	5%	1/4W	
R460	1-249-419-11	CARBON	1.5K	5%	1/4W	
R461	1-249-425-11	CARBON	4.7K	5%	1/4W	
R469	1-249-417-11	CARBON	1K	5%	1/4W	
		⟨ VARIABLE RESISTOR ⟩				
RV401	1-241-434-11	RES, VAR, SLIDE 250K (100Hz)				
RV402	1-241-434-11	RES, VAR, SLIDE 250K (330Hz)				
RV403	1-241-434-11	RES, VAR, SLIDE 250K (1KHz)				
RV404	1-241-434-11	RES, VAR, SLIDE 250K (3.3KHz)				
RV405	1-241-434-11	RES, VAR, SLIDE 250K (10KHz)				

Ref. No.	Part No.	Description				Remarks
RV406	1-241-022-11	RES, VAR, CARBON 150K/150K (BALANCE)				
RV410	1-238-777-11	RES, VAR, CARBON 250K (IN PUT BALANCE)				
RV451	1-241-434-11	RES, VAR, SLIDE 250K (100Hz)				
RV452	1-241-434-11	RES, VAR, SLIDE 250K (330Hz)				
RV453	1-241-434-11	RES, VAR, SLIDE 250K (1KHz)				
RV454	1-241-434-11	RES, VAR, SLIDE 250K (3.3KHz)				
RV455	1-241-434-11	RES, VAR, SLIDE 250K (10KHz)				
		⟨ SWITCH ⟩				
S101	1-554-303-21	SWITCH, TACTILE (PHONO)				
S102	1-554-303-21	SWITCH, TACTILE (TUNER)				
S103	1-554-303-21	SWITCH, TACTILE (CD)				
S104	1-554-303-21	SWITCH, TACTILE (TAPE)				
S105	1-554-303-21	SWITCH, TACTILE (VIDEO)				
S109	1-554-303-21	SWITCH, TACTILE (+)				
S110	1-554-303-21	SWITCH, TACTILE (-)				
S113	1-554-303-21	SWITCH, TACTILE (DOLBY)				
S114	1-554-303-21	SWITCH, TACTILE (HALL)				
S115	1-554-303-21	SWITCH, TACTILE (SIMULATED)				
S116	1-554-303-21	SWITCH, TACTILE (ON/OFF)				
		⟨ CRYSTAL ⟩				
X101	1-567-775-11	VIBRATOR, CERAMIC				
**********						
*	1-638-280-11	DBFB BOARD **********				
		⟨ CONNECTOR ⟩				
CN107	* 1-568-951-11	PIN, CONNECTOR 2P				
		⟨ SWITCH ⟩				
S111	1-554-303-21	SWITCH, TACTILE (DBFB)				
**********						
*	1-638-276-11	FUSE BOARD **********				
		⟨ CAPACITOR ⟩				
C901	1-161-744-00	CERAMIC	0.01uF		400V	
C966	1-130-487-00	MYLAR	0.022uF	5%	50V	
C967	1-130-487-00	MYLAR	0.022uF	5%	50V	
C968	1-162-282-31	CERAMIC	100PF	10%	50V	
C969	1-124-557-11	ELECT	1000uF	20%	25V	
C970	1-124-477-11	ELECT	47uF	20%	25V	
C971	1-124-907-11	ELECT	10uF	20%	50V	
C972	1-124-903-11	ELECT	1uF	20%	50V	
C973	1-130-487-00	MYLAR	0.022uF	5%	50V	
C974	1-124-464-11	ELECT	0.22uF	20%	50V	
		⟨ CONNECTOR ⟩				
CN901	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P				
CN902	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P				
CN956	* 1-564-777-11	PLUG, CONNECTOR (2.5MM) 2P				
CN957	* 1-568-826-11	SOCKET, CONNECTOR 7P				
CNJ901	⚠1-540-062-11	OUTLET, AC				

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

FUSE | HP | HP JOINT | MAIN

Ref. No.	Part No.	Description				Remarks
		〈 DIODE 〉				
D958	8-719-987-63	DIODE	1N4148M			
D959	8-719-200-77	DIODE	10E2N			
D960	8-719-200-77	DIODE	10E2N			
D961	8-719-200-77	DIODE	10E2N			
D962	8-719-200-77	DIODE	10E2N			
D963	8-719-987-63	DIODE	1N4148M			
D964	8-719-987-63	DIODE	1N4148M			
D965	8-719-933-41	DIODE	HZS6C3L			
D966	8-719-933-41	DIODE	HZS6C3L			
D967	8-719-985-53	DIODE	HZS4ALL			
		〈 FUSE 〉				
F901	⚠1-532-749-11	FUSE (6A)				
		〈 TRANSISTOR 〉				
Q952	8-729-209-15	TRANSISTOR	2SD2012			
Q953	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q954	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q955	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q956	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q957	8-729-119-78	TRANSISTOR	2SC2785-HFE			
		〈 RESISTOR 〉				
R960	1-249-396-11	CARBON	18	5%	1/6W	
R961	1-249-417-11	CARBON	1K	5%	1/4W	
R962	1-249-437-11	CARBON	47K	5%	1/4W	
R963	1-249-433-11	CARBON	22K	5%	1/4W	
R964	1-249-429-11	CARBON	10K	5%	1/4W	
R965	1-249-425-11	CARBON	4.7K	5%	1/4W	
R966	1-249-429-11	CARBON	10K	5%	1/4W	
R967	1-249-417-11	CARBON	1K	5%	1/4W	
R968	1-249-429-11	CARBON	10K	5%	1/4W	
R969	1-249-426-11	CARBON	5.6K	5%	1/4W	
R970	1-249-417-11	CARBON	1K	5%	1/4W	
R971	1-249-426-11	CARBON	5.6K	5%	1/4W	
		〈 RELAY 〉				
RY901	⚠1-515-701-11	RELAY (POWER)				
		〈 TRANSFORMER 〉				
T902	⚠1-449-993-21	TRANSFORMER, POWER				
**********						
	* 1-638-285-11	HP BOARD				
		********				
		〈 JACK 〉				
J700	1-568-515-21	JACK (LARGE TYPE)(PHONES)				
**********						

Ref. No.	Part No.	Description				Remarks
	* 1-638-286-11	HP JOINT BOARD				
		**********				
		〈 CONNECTOR 〉				
CN707	* 1-506-509-11	PIN, CONNECTOR 4P				
**********						
	A-4341-682-A	MAIN BOARD, COMPLETE				
		**********				
	* 1-638-270-11	MAIN BOARD				
	1-533-217-31	HOLDER,	FUSE			
	* 4-942-204-01	PLATE, GROUND				
	7-682-548-04	SCREW +BVTT	3X8 (S)			
		〈 CAPACITOR 〉				
C301	1-124-907-11	ELECT	10uF	20%	50V	
C302	1-162-215-31	CERAMIC	47PF	5%	50V	
C303	1-124-907-11	ELECT	10uF	20%	50V	
C304	1-124-907-11	ELECT	10uF	20%	50V	
C305	1-162-215-31	CERAMIC	47PF	5%	50V	
C306	1-162-282-31	CERAMIC	100PF	10%	50V	
C307	1-124-927-11	ELECT	4.7uF	20%	100V	
C308	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C309	1-130-480-00	MYLAR	0.0056uF	30%	50V	
C310	1-162-290-31	CERAMIC	470PF	10%	50V	
C311	1-124-907-11	ELECT	10uF	20%	50V	
C312	1-162-292-31	CERAMIC	680PF	10%	50V	
C313	1-130-497-00	MYLAR	0.15uF	5%	50V	
C314	1-162-284-31	CERAMIC	150PF	10%	50V	
C315	1-130-487-00	MYLAR	0.022uF	5%	50V	
C316	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C317	1-124-903-11	ELECT	1uF	20%	50V	
C318	1-124-907-11	ELECT	10uF	20%	50V	
C319	1-124-657-00	ELECT	10uF	20%	50V	
C320	1-124-907-11	ELECT	10uF	20%	50V	
C321	1-124-657-00	ELECT	10uF	20%	50V	
C322	1-130-489-00	MYLAR	0.033uF	5%	50V	
C323	1-161-377-00	CERAMIC	0.0047uF	30%	16V	
C324	1-130-478-00	MYLAR	0.0039uF	5%	50V	
C325	1-130-493-00	MYLAR	0.068uF	5%	50V	
C326	1-124-464-11	ELECT	0.22uF	20%	50V	
C327	1-164-056-11	CERAMIC	27PF	5%	50V	
C328	1-164-056-11	CERAMIC	27PF	5%	50V	
C329	1-124-472-11	ELECT	470uF	20%	10V	
C330	1-124-903-11	ELECT	1uF	20%	50V	
C331	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C332	1-130-487-00	MYLAR	0.022uF	5%	50V	
C333	1-162-284-31	CERAMIC	150PF	10%	50V	
C334	1-126-176-11	ELECT	220uF	20%	10V	
C335	1-126-176-11	ELECT	220uF	20%	10V	
C336	1-126-118-11	ELECT	220uF	20%	16V	
C337	1-130-495-00	MYLAR	0.1uF	5%	50V	
C338	1-126-176-11	ELECT	220uF	20%	10V	
C339	1-124-907-11	ELECT	10uF	20%	50V	
C340	1-124-608-11	ELECT	0.22uF	20%	50V	

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

Ref. No.	Part No.	Description				Remarks
C341	1-124-905-00	ELECT	3.3uF		50V	
C342	1-124-905-00	ELECT	3.3uF		50V	
C351	1-124-907-11	ELECT	10uF	20%	50V	
C352	1-162-215-31	CERAMIC	47PF	5%	50V	
C353	1-124-907-11	ELECT	10uF	20%	50V	
C354	1-124-907-11	ELECT	10uF	20%	50V	
C355	1-162-215-31	CERAMIC	47PF	5%	50V	
C356	1-162-282-31	CERAMIC	100PF	10%	50V	
C357	1-124-927-11	ELECT	4.7uF	20%	100V	
C422	1-124-927-11	ELECT	4.7uF	20%	100V	
C423	1-124-927-11	ELECT	4.7uF	20%	100V	
C424	1-124-927-11	ELECT	4.7uF	20%	100V	
C425	1-124-477-11	ELECT	47uF	20%	25V	
C426	1-124-903-00	ELECT	1uF		50V	
C501	1-162-283-31	CERAMIC	120PF	10%	50V	
C502	1-124-907-11	ELECT	10uF	20%	50V	
C503	1-162-282-31	CERAMIC	100PF	10%	50V	
C504	1-124-925-11	ELECT	2.2uF	20%	100V	
C505	1-130-480-00	MYLAR	0.0056uF	5%	50V	
C506	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
C507	1-124-902-00	ELECT	0.47uF	20%	50V	
C508	1-126-233-11	ELECT	22uF	20%	50V	
C509	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C510	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C548	1-124-468-00	ELECT	150uF		6.3V	
C551	1-162-283-31	CERAMIC	120PF	10%	50V	
C552	1-124-907-11	ELECT	10uF	20%	50V	
C553	1-162-282-31	CERAMIC	100PF	10%	50V	
C554	1-124-925-11	ELECT	2.2uF	20%	100V	
C555	1-130-480-00	MYLAR	0.0056uF	5%	50V	
C556	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
C557	1-124-902-00	ELECT	0.47uF	20%	50V	
C558	1-126-233-11	ELECT	22uF	20%	50V	
C701	1-124-927-11	ELECT	4.7uF	20%	100V	
C702	1-162-286-31	CERAMIC	220PF	10%	50V	
C706	1-162-209-31	CERAMIC	27PF	5%	50V	
C707	1-161-959-00	CERAMIC	22PF	10%	500V	
C708	1-124-477-11	ELECT	47uF	20%	25V	
C709	1-161-959-00	CERAMIC	22PF	10%	500V	
C710	1-130-495-00	MYLAR	0.1uF	5%	50V	
C712	1-130-493-00	MYLAR	0.068uF	5%	50V	
C713	1-130-487-00	MYLAR	0.022uF	5%	50V	
C714	1-124-477-11	ELECT	47uF	20%	25V	
C715	1-124-443-00	ELECT	100uF	20%	10V	
C716	1-124-907-11	ELECT	10uF	20%	50V	
C717	1-124-477-11	ELECT	47uF	20%	25V	
C751	1-124-927-11	ELECT	4.7uF	20%	100V	
C752	1-162-286-31	CERAMIC	220PF	10%	50V	
C756	1-162-209-31	CERAMIC	27PF	5%	50V	
C757	1-161-959-00	CERAMIC	22PF	10%	500V	
C758	1-124-477-11	ELECT	47uF	20%	25V	
C759	1-161-959-00	CERAMIC	22PF	10%	500V	
C760	1-130-495-00	MYLAR	0.1uF	5%	50V	
C762	1-130-493-00	MYLAR	0.068uF	5%	50V	
C951	1-106-367-00	MYLAR	0.01uF	5%	200V	
C952	1-106-367-00	MYLAR	0.01uF	5%	200V	
C953	1-126-358-11	ELECT	10000uF	20%	71V	
C954	1-126-358-11	ELECT	10000uF	20%	71V	
C955	1-124-026-00	ELECT	3300uF	20%	35V	
C956	1-124-026-00	ELECT	3300uF	20%	35V	

Ref. No.	Part No.	Description				Remarks
C957	1-130-487-00	MYLAR	0.022uF	5%	50V	
C958	1-130-487-00	MYLAR	0.022uF	5%	50V	
C959	1-124-563-11	ELECT	2200uF	20%	25V	
C960	1-124-557-11	ELECT	1000uF	20%	25V	
C961	1-124-907-11	ELECT	10uF	20%	50V	
C962	1-124-907-11	ELECT	10uF	20%	50V	
C963	1-124-477-11	ELECT	47uF	20%	25V	
C964	1-124-477-11	ELECT	47uF	20%	25V	
C965	1-124-477-11	ELECT	47uF	20%	25V	
		〈 CONNECTOR 〉				
CN104	* 1-568-836-11	SOCKET, CONNECTOR 17P				
CN2	1-564-980-11	PIN, CONNECTOR 4P				
CN301	* 1-568-826-11	SOCKET, CONNECTOR 7P				
CN701	* 1-568-826-11	SOCKET, CONNECTOR 7P				
CN710	* 1-563-192-11	CONNECTOR (SOCKET) 9P				
CN711	* 1-563-192-11	CONNECTOR (SOCKET) 9P				
		〈 DIODE 〉				
D115	8-719-987-63	DIODE	1N4148M			
D703	8-719-815-85	DIODE	1S1585			
D704	8-719-815-85	DIODE	1S1585			
D705	8-719-987-63	DIODE	1N4148M			
D706	8-719-987-63	DIODE	1N4148M			
D707	8-719-815-85	DIODE	1S1585			
D708	8-719-987-63	DIODE	1N4148M			
D753	8-719-815-85	DIODE	1S1585			
D754	8-719-815-85	DIODE	1S1585			
D951	8-719-302-38	DIODE	RBV-602-01			
D952	8-719-312-09	DIODE	RBA-402			
D953	8-719-200-77	DIODE	10E2N			
D954	8-719-200-77	DIODE	10E2N			
D955	8-719-200-77	DIODE	10E2N			
D956	8-719-200-77	DIODE	10E2N			
D957	8-719-934-21	DIODE	HZS30-1L			
		〈 IC 〉				
IC301	8-759-634-50	IC	M5218AL			
IC302	8-759-801-01	IC	LC4966			
IC303	8-759-823-63	IC	LV1001M			
IC304	8-759-821-13	IC	LM3364K-15			
IC305	8-759-634-50	IC	M5218AL			
IC306	8-759-634-50	IC	M5218AL			
IC403	8-759-634-50	IC	M5218AL			
IC404	8-759-820-11	IC	LC7535			
IC501	8-759-634-50	IC	M5218AL			
IC502	8-759-805-14	IC	LC7822			
IC701	8-759-111-68	IC	uPC1237HA			
IC951	8-759-231-53	IC	M5F7805L			
IC952	8-759-604-33	IC	M5F7812L			
IC953	8-759-604-51	IC	M5F7912L			
		〈 JACK 〉				
J501	1-580-826-11	JACK, PIN (Lch: PHONO, CD, VIDEO, TAPE, TUNER IN, REC OUT)				
J502	1-580-825-11	JACK, PIN (Rch: PHONO, CD, VIDEO, TAPE, TUNER IN, REC OUT)				

MAIN

Ref. No.	Part No.	Description	Remarks
		⟨ COIL ⟩	
L701	* 1-420-872-00	COIL, AIR CORE	
L751	* 1-420-872-00	COIL, AIR CORE	
		⟨ TRANSISTOR ⟩	
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q301	8-729-900-36	TRANSISTOR DTC124ES	
Q302	8-729-900-63	TRANSISTOR DTA124ES	
Q303	8-729-900-36	TRANSISTOR DTC124ES	
Q304	8-729-900-63	TRANSISTOR DTA124ES	
Q305	8-729-900-36	TRANSISTOR DTC124ES	
Q306	8-729-900-36	TRANSISTOR DTC124ES	
Q307	8-729-209-15	TRANSISTOR 2SD2012	
Q404	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q405	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q705	8-729-141-06	TRANSISTOR 2SA1142-QPE	
Q706	8-729-209-15	TRANSISTOR 2SD2012	
Q707	8-729-141-05	TRANSISTOR 2SC2682-QPE	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q709	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q710	8-729-141-46	TRANSISTOR 2SC4431-LK	
Q711	8-729-141-37	TRANSISTOR 2SA1684-LK	
Q712	8-729-320-96	TRANSISTOR 2SC2921-QPY	
Q713	8-729-320-75	TRANSISTOR 2SA1215-QY	
Q714	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q715	8-729-900-63	TRANSISTOR DTA124ES	
Q716	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q755	8-729-141-06	TRANSISTOR 2SA1142-QPE	
Q756	8-729-209-15	TRANSISTOR 2SD2012	
Q757	8-729-141-05	TRANSISTOR 2SC2682-QPE	
Q758	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q759	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q760	8-729-141-46	TRANSISTOR 2SC4431-LK	
Q761	8-729-141-37	TRANSISTOR 2SA1684-LK	
Q762	8-729-320-96	TRANSISTOR 2SC2921-QPY	
Q763	8-729-320-73	TRANSISTOR 2SA1215-QY	
Q764	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q951	8-729-141-03	TRANSISTOR 2SA733-QP	
		⟨ RESISTOR ⟩	
R139	1-249-417-11	CARBON 1K 5% 1/4W	
R140	1-249-393-11	CARBON 10 5% 1/4W	
R301	1-247-887-00	CARBON 220K 5% 1/4W	
R302	1-247-887-00	CARBON 220K 5% 1/4W	
R303	1-249-429-11	CARBON 10K 5% 1/4W	
R304	1-247-895-00	CARBON 470K 5% 1/4W	
R305	1-249-429-11	CARBON 10K 5% 1/4W	
R306	1-249-429-11	CARBON 10K 5% 1/4W	
R307	1-249-441-11	CARBON 100K 5% 1/4W	
R308	1-249-437-11	CARBON 47K 5% 1/4W	
R309	1-249-428-11	CARBON 8.2K 5% 1/4W	
R310	1-249-428-11	CARBON 8.2K 5% 1/4W	
R311	1-249-431-11	CARBON 15K 5% 1/4W	
R312	1-249-428-11	CARBON 8.2K 5% 1/4W	
R313	1-249-436-11	CARBON 39K 5% 1/4W	

Ref. No.	Part No.	Description	Remarks
R314	1-249-423-11	CARBON 3.3K 5% 1/4W	
R315	1-249-437-11	CARBON 47K 5% 1/4W	
R316	1-247-903-00	CARBON 1M 5% 1/4W	
R317	1-249-429-11	CARBON 10K 5% 1/4W	
R318	1-247-887-00	CARBON 220K 5% 1/4W	
R319	1-249-429-11	CARBON 10K 5% 1/4W	
R320	1-249-429-11	CARBON 10K 5% 1/4W	
R321	1-249-429-11	CARBON 10K 5% 1/4W	
R322	1-249-437-11	CARBON 47K 5% 1/4W	
R323	1-249-437-11	CARBON 47K 5% 1/4W	
R324	1-249-421-11	CARBON 2.2K 5% 1/4W	
R340	1-247-823-00	CARBON 470 5% 1/4W	
R344	1-249-425-11	CARBON 4.7K 5% 1/4W	
R345	1-247-857-00	CARBON 12K 5% 1/4W	
R351	1-247-887-00	CARBON 220K 5% 1/4W	
R352	1-247-887-00	CARBON 220K 5% 1/4W	
R353	1-249-429-11	CARBON 10K 5% 1/4W	
R354	1-247-895-00	CARBON 470K 5% 1/4W	
R355	1-249-429-11	CARBON 10K 5% 1/4W	
R356	1-249-429-11	CARBON 10K 5% 1/4W	
R357	1-249-441-11	CARBON 100K 5% 1/4W	
R374	1-249-421-11	CARBON 2.2K 5% 1/4W	
R420	1-249-429-11	CARBON 10K 5% 1/4W	
R421	1-247-887-00	CARBON 220K 5% 1/4W	
R422	1-249-429-11	CARBON 10K 5% 1/4W	
R423	1-247-863-11	CARBON 22K 5% 1/4W	
R424	1-249-421-11	CARBON 2.2K 5% 1/4W	
R425	1-249-425-11	CARBON 4.7K 5% 1/4W	
R426	1-249-441-11	CARBON 100K 5% 1/4W	
R501	1-249-411-11	CARBON 330 5% 1/4W	
R502	1-247-865-11	CARBON 27K 5% 1/4W	
R503	1-249-429-11	CARBON 10K 5% 1/4W	
R504	1-249-417-11	CARBON 1K 5% 1/4W	
R505	1-249-417-11	CARBON 1K 5% 1/4W	
R506	1-249-417-11	CARBON 1K 5% 1/4W	
R507	1-249-437-11	CARBON 47K 5% 1/4W	
R508	1-249-416-11	CARBON 820 5% 1/4W	
R509	1-247-897-11	CARBON 560K 5% 1/4W	
R510	1-249-437-11	CARBON 47K 5% 1/4W	
R511	1-249-441-11	CARBON 100K 5% 1/4W	
R512	1-249-409-11	CARBON 220 5% 1/4W	
R513	1-249-425-11	CARBON 4.7K 5% 1/4W	
R551	1-249-411-11	CARBON 330 5% 1/4W	
R552	1-247-865-11	CARBON 27K 5% 1/4W	
R553	1-249-429-11	CARBON 10K 5% 1/4W	
R554	1-249-417-11	CARBON 1K 5% 1/4W	
R555	1-249-417-11	CARBON 1K 5% 1/4W	
R556	1-249-417-11	CARBON 1K 5% 1/4W	
R557	1-249-437-11	CARBON 47K 5% 1/4W	
R558	1-249-416-11	CARBON 820 5% 1/4W	
R559	1-247-897-11	CARBON 560K 5% 1/4W	
R560	1-249-437-11	CARBON 47K 5% 1/4W	
R561	1-249-441-11	CARBON 100K 5% 1/4W	
R562	1-249-409-11	CARBON 220 5% 1/4W	
R701	1-249-417-11	CARBON 1K 5% 1/4W	
R712	1-249-435-11	CARBON 33K 5% 1/4W	
R713	⚠1-247-692-11	CARBON 22 5% 1/4W	
R714	1-249-417-11	CARBON 1K 5% 1/4W	
R715	1-249-412-11	CARBON 390 5% 1/4W	
R716	⚠1-247-692-11	CARBON 22 5% 1/4W	

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

MAIN | RX | SP SW | SP TM

Ref. No.	Part No.	Description				Remarks
R717	⚠1-247-688-11	CARBON	10	5%	1/4W	
R718	⚠1-247-688-11	CARBON	10	5%	1/4W	
R719	⚠1-247-719-11	CARBON	3.3K	5%	1/4W	
R720	⚠1-247-713-11	CARBON	1K	5%	1/4W	
R721	⚠1-247-713-11	CARBON	1K	5%	1/4W	
R722	⚠1-247-717-11	CARBON	2.2K	5%	1/4W	
R723	⚠1-247-745-11	CARBON	330	5%	1/2W	
R724	⚠1-247-688-11	CARBON	10	5%	1/4W	
R725	⚠1-247-688-11	CARBON	10	5%	1/4W	
R726	⚠1-214-789-00	RES, METAL PLATE 0.1				
R727	⚠1-214-789-00	RES, METAL PLATE 0.1				
R728	1-249-393-11	CARBON	10	5%	1/4W	
R729	1-249-393-11	CARBON	10	5%	1/4W	
R730	1-249-419-11	CARBON	1.5K	5%	1/4W	
R731	1-249-431-11	CARBON	15K	5%	1/4W	
R732	1-249-437-11	CARBON	47K	5%	1/4W	
R734	1-249-393-11	CARBON	10	5%	1/4W	
R735	1-249-393-11	CARBON	10	5%	1/4W	
R736	1-249-438-11	CARBON	56K	5%	1/4W	
R737	1-249-433-11	CARBON	22K	5%	1/4W	
R738	1-249-425-11	CARBON	4.7K	5%	1/4W	
R739	1-249-429-11	CARBON	10K	5%	1/4W	
R751	1-249-417-11	CARBON	1K	5%	1/4W	
R762	1-249-435-11	CARBON	33K	5%	1/4W	
R763	⚠1-247-692-11	CARBON	22	5%	1/4W	
R764	1-249-417-11	CARBON	1K	5%	1/4W	
R765	1-249-412-11	CARBON	390	5%	1/4W	
R766	⚠1-247-692-11	CARBON	22	5%	1/4W	
R767	⚠1-247-688-11	CARBON	10	5%	1/4W	
R768	⚠1-247-688-11	CARBON	10	5%	1/4W	
R769	⚠1-247-719-11	CARBON	3.3K	5%	1/4W	
R770	⚠1-247-713-11	CARBON	1K	5%	1/4W	
R771	⚠1-247-713-11	CARBON	1K	5%	1/4W	
R772	⚠1-247-717-11	CARBON	2.2K	5%	1/4W	
R773	⚠1-247-745-11	CARBON	330	5%	1/2W	
R774	⚠1-247-688-11	CARBON	10	5%	1/4W	
R775	⚠1-247-688-11	CARBON	10	5%	1/4W	
R776	⚠1-214-789-00	RES, METAL PLATE 0.1				
R777	⚠1-214-789-00	RES, METAL PLATE 0.1				
R778	1-249-393-11	CARBON	10	5%	1/4W	
R779	1-249-393-11	CARBON	10	5%	1/4W	
R780	1-249-419-11	CARBON	1.5K	5%	1/4W	
R781	1-249-431-11	CARBON	15K	5%	1/4W	
R782	1-249-438-11	CARBON	56K	5%	1/4W	
R784	1-249-393-11	CARBON	10	5%	1/4W	
R789	1-249-393-11	CARBON	10	5%	1/4W	
R953	1-247-813-11	CARBON	180	5%	1/4W	
R955	⚠1-247-704-11	CARBON	220	5%	1/4W	
R956	1-249-426-11	CARBON	5.6K	5%	1/4W	
R957	1-249-385-11	CARBON	2.2	5%	1/6W	
R958	1-249-385-11	CARBON	2.2	5%	1/6W	
R959	1-249-385-11	CARBON	2.2	5%	1/6W	
		〈 RELAY 〉				
RY701	1-515-741-11	RELAY				
		〈 CONNECTOR 〉				
TP701	* 1-560-531-00	PIN, CONNECTOR 5P				
		〈 CRYSTAL 〉				
X301	1-577-157-11	VIBRATOR, CERAMIC (8MHz)				
**********						
	* 1-638-277-11	RX BOARD				
		********				
		〈 CAPACITOR 〉				
C107	1-162-294-31	CERAMIC	0.001uF	10%	50V	
		〈 CONNECTOR 〉				
CN106	* 1-565-295-11	PLUG, CONNECTOR 4P				
		〈 IC 〉				
IC102	8-749-920-83	IC GP1U52XB				
		〈 RESISTOR 〉				
R137	1-249-429-11	CARBON	10K	5%	1/4W	
R138	1-249-429-11	CARBON	10K	5%	1/4W	
		〈 SWITCH 〉				
S117	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)				
**********						
	* 1-638-284-11	SP SW BOARD				
		**********				
		〈 CONNECTOR 〉				
CN706	* 1-565-480-11	CONNECTOR, BOARD TO BOARD 4P				
CN708	1-506-786-11	PLUG, CONNECTOR (2.5mm) 12P				
		〈 RESISTOR 〉				
R733	⚠1-216-431-11	METAL OXIDE	560	5%	1W F	
R783	⚠1-216-431-11	METAL OXIDE	560	5%	1W F	
		〈 SWITCH 〉				
S701	1-572-685-11	SWITCH, ROTARY SLIDE (SPEAKER)				
**********						
	* 1-638-287-11	SP TM BOARD				
		**********				
		〈 CONNECTOR 〉				
CN705	* 1-564-778-11	PLUG, CONNECTOR (2.5MM) 4P				
		〈 TERMINAL 〉				
TM701	1-537-341-11	TERMINAL BOARD (8P SP)				
**********						

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

SURR | SURR SP | VOL | VOL JOINT

Ref. No.	Part No.	Description				Remarks
	* 1-638-282-11	SURR BOARD				
		**********				
		⟨ CAPACITOR ⟩				
C601	1-124-927-11	ELECT	4.7uF	20%	100V	
C602	1-162-282-31	CERAMIC	100PF	10%	50V	
C603	1-124-477-11	ELECT	47uF	20%	25V	
C604	1-130-483-00	MYLAR	0.01uF	5%	50V	
C605	1-124-907-11	ELECT	10uF	20%	50V	
C606	1-124-907-11	ELECT	10uF	20%	50V	
C607	1-136-171-00	MYLAR	0.33uF	5%	50V	
C609	1-130-489-00	MYLAR	0.033uF	5%	50V	
		⟨ CONNECTOR ⟩				
CN601	* 1-506-710-11	PLUG, CONNECTOR (2.5MM) 8P				
CN602	* 1-565-835-11	SOCKET, CONNECTOR 3P				
		⟨ DIODE ⟩				
D601	8-719-987-63	DIODE 1N4148M				
D602	8-719-987-63	DIODE 1N4148M				
D603	8-719-987-63	DIODE 1N4148M				
		⟨ IC ⟩				
IC601	8-759-502-32	IC SI-18752N				
		⟨ TRANSISTOR ⟩				
Q601	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
		⟨ RESISTOR ⟩				
R601	1-249-417-11	CARBON	1K	5%	1/4W	
R602	1-249-437-11	CARBON	47K	5%	1/4W	
R603	1-247-817-11	CARBON	270	5%	1/4W	
R604	1-249-437-11	CARBON	47K	5%	1/4W	
R605	⚠1-217-151-00	RES, METAL PLATE 0.22				
R606	1-247-688-11	CARBON	10	5%	1/4W	
R607	1-247-815-11	CARBON	220K	5%	1/4W	
R608	1-247-853-11	CARBON	8.2K	5%	1/4W	
R609	1-247-688-11	CARBON	10	5%	1/4W	
R610	1-249-437-11	CARBON	47K	5%	1/4W	
R611	1-247-817-11	CARBON	270	5%	1/4W	
		⟨ RELAY ⟩				
RY601	1-515-790-11	RELAY (REAR SP)				
**********						
	* 1-638-281-11	SURR SP BOARD				
		**********				
		⟨ CONNECTOR ⟩				
CN603	* 1-560-666-00	PIN, CONNECTOR 3P				
		⟨ TERMINAL ⟩				
TM601	* 1-537-265-11	TERMINAL BOARD (REAR SPEAKER)				
**********						

Ref. No.	Part No.	Description				Remarks
	* 1-638-278-11	VOL BOARD				
		*********				
		⟨ CONNECTOR ⟩				
CN204	* 1-568-826-11	SOCKET, CONNECTOR 7P				
		⟨ VARIABLE RESISTOR ⟩				
RV407	1-241-413-11	RES, VAR, CARBON 100KX3 (MASTER VOLUME)				
**********						
	* 1-638-279-11	VOL JOINT BOARD				
		**********				
		⟨ CAPACITOR ⟩				
C418	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C419	1-124-925-11	ELECT	2.2uF	20%	100V	
C420	1-124-925-11	ELECT	2.2uF	20%	100V	
C421	1-162-306-11	CERAMIC	0.01uF	20%	16V	
		⟨ CONNECTOR ⟩				
CN403	1-569-132-11		7P			
		⟨ IC ⟩				
IC402	8-759-820-62	IC LB1639				
		⟨ RESISTOR ⟩				
R416	1-247-813-11	CARBON	180	5%	1/4W	
R417	1-249-425-11	CARBON	4.7K	5%	1/4W	
R418	1-249-425-11	CARBON	4.7K	5%	1/4W	
**********						
		MISCELLANEOUS				
		**********				
5	1-590-486-11	WIRE, FLAT TYPE (7 CORE)				
6	1-590-487-11	WIRE, FLAT TYPE (17 CORE)				
13	1-590-538-11	WIRE, FLAT TYPE (7 CORE)				
14	1-590-485-11	WIRE, FLAT TYPE (7 CORE)				
CNP901	⚠1-551-478-00	CORD, POWER				
T901	⚠1-450-370-11	TRANSFORMER, POWER				
**********						
		ACCESSORY & PACKING MATERIAL				
		**********				
	1-465-711-11	REMOTE COMMANDER (RM-U212)				
	3-707-584-01	COVER, BATTERY				
	3-753-099-21	MANUAL, INSTRUCTION (ENGLISH)				
	* 4-943-619-01	INDIVIDUAL CARTON				
	* 4-943-620-01	CUSHION				
**********						

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

Ref. No.	Part No.	Description	Remarks

HARDWARE LIST

****

# 1	7-621-849-00	SCREW, TAPPING	
# 2	7-682-548-09	SCREW +B 3X8	
# 3	7-682-949-01	SCREW +PSW 3X10	
# 5	7-682-950-01	SCREW +PSW 3X12	
# 6	7-685-646-79	SCREW +BTP 3X8	TYPE2 N-S
# 7	7-682-548-04	SCREW +BVTT 3X8	(S)
# 8	7-682-561-04	SCREW +BVTT 4X8	(S)

9-956-349-11

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Audio Group

English
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SONY

SERVICE MANUAL

US Model

CORRECTION-1

Correct your service manual as shown below.

Correct the part No. as shown below

Page	INCORRECT	CORRECT	
	Part No.	Part No.	Description
32	A-4341-682-A	* A-4341-678-A	MAIN BOARD, COMPLETE

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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Audio Group

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