

STR-V5500

SERVICE MANUAL

*E Model
Chinese Model*



STR-V5500 is RECEIVER section in
MHC-V5500.

Manufactured under license from Dolby Laboratories
Licensing Corporation.

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trademarks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS

Amplifier section

Continuous RMS power output
China model 100+100 watts
6 ohms at 1 kHz, 10%
THD (240V AC supply)
85+85 watts
6 ohms at 1 kHz, 10%
THD (220V AC supply)
Other models 100+100 watts (6 ohms
at 1 kHz, 10% THD)
Peak music power output
1500 watts (reference)
Inputs MD/VIDEO 1 IN (phono
jacks): voltage 250 mV,
impedance 47 kilo ohms
AV INPUT AUDIO
(phono jacks): voltage 250
mV, impedance 47 kilo
ohms
MIX MIC 1/2 (phone
jack): sensitivity 1 mVm,
impedance 10 kilo ohms
Outputs MD/VIDEO OUT
(phono jacks): voltage 250
mV, impedance 1 kilo ohm
PHONES (stereo phone
jack): accepts headphones
of 8 ohms or more.
SPEAKER: accepts
impedance of 6 to 16 ohms
SUPER WOOFER:
Voltage 1 V, impedance 1
kilo ohm

Video section

Inputs AV INPUT VIDEO
(phono jack):
1 Vp-p, 75 ohms
VIDEO IN (phono jack):
1 Vp-p, 75 ohms
Outputs MONITOR OUT (phono
jack): 1 Vp-p, 75 ohms
VIDEO OUT (phono
jack): 1 Vp-p, 75 ohms
S-VIDEO (4-pin/mini-
DIN jack):
Y: 1 Vp-p, unbalanced,
sync negative
C: 0.286 Vp-p, load
impedance 75 ohms

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5-108.0 MHz
Antenna terminals 75 ohm unbalanced
Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
Thai models: 531-1,602 kHz
(with the AM tuning
interval set at 9 kHz)
530-1,710 kHz
(with the AM tuning
interval set at 10 kHz)

Other models:

MW
531-1,602 kHz
(with the MW tuning
interval set at 9 kHz)
530-1,710 kHz
(with the MW tuning
interval set at 10 kHz)
SW
5.95-17.90 MHz
(with the SW tuning
interval set at 5 kHz)
Intermediate frequency 450 kHz
Antenna AM loop antenna
External antenna terminal

Design and specifications are subject to change
without notice.

FM STEREO/FM-AM RECEIVER



SONY

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SAFETY-RELATED COMPONENT WARNING!!

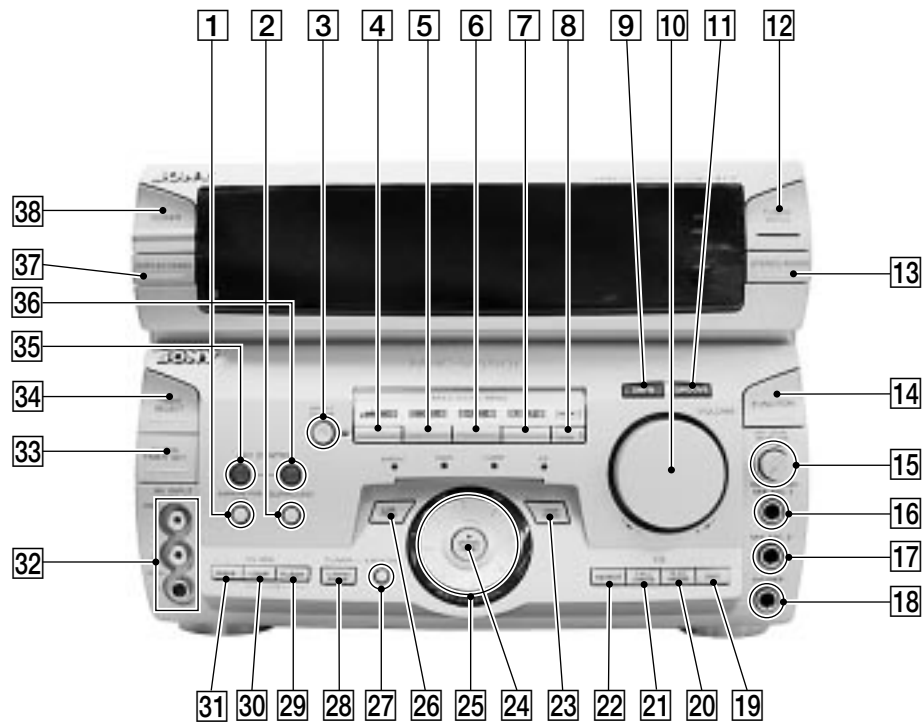
COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1 GENERAL

— FRONT PANEL —



- 1** KARAOKE PON/MPX button
- 2** SURROUND button
- 3** EFFECT ON/OFF button
- 4** MUSIC button
- 5** MOVIE button
- 6** GAME button
- 7** P FILE button
- 8** MEMO button
- 9** DBFB button
- 10** VOLUME
- 11** GROOVE button
- 12** TUNER BAND button
- 13** STEREO/MONO button
- 14** FUNCTION button
- 15** MIC LEVEL/ECHO VOL
- 16** MIX MIC 1 jack
- 17** MIX MIC 2 jack
- 18** PHONES jack
- 19** EDIT button

- 20** PLAY MODE button
- 21** 1/ALL DISCS button
- 22** REPEAT button
- 23** HIGH FREQ button
- 24** ENTER/NEXT button
- 25** MULTI JOG STATION dial
- 26** LOW FREQ button
- 27** MEMORY button
- 28** TUNING MODE button
- 29** FLASH button
- 30** LOOP button
- 31** WAVE button
- 32** AV INPUT jack
- 33** CLOCK TIMER SET button
- 34** TIMER SELECT button
- 35** KEY CONTROL **b** button
- 36** KEY CONTROL **#** button
- 37** DISPLAY/DEMO button
- 38** POWER button

— BACK PANEL —



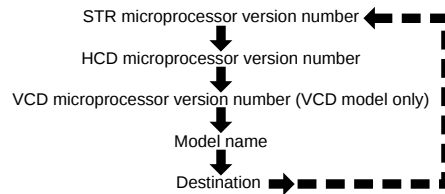
- 39 ANTENNA terminal
- 40 SYSTEM CONTROL
- 41 MD/VIDEO 1 jack
- 42 FRONT SPEAKER terminal
- 43 SUPER WOOFER jack
- 44 VIDEO OUT jack
- 45 VOLTAGE SELECTOR switch

SECTION 2 TEST MODE

FL DISPLAY/KEY LED TEST MODE

Press the REPEAT, ENTER/NEXT and SURROUND buttons simultaneously.

1. All FL segments and all LEDs turn on.
2. To access the microprocessor information, press the P FILE key. Each pressing of the P FILE key advances the display on the FL tube in the following sequence.



3. To check the encoder, press the MUSIC key. The following display appears on the FL tube.

"K 0 J 0 V 0"

The number after K indicates the number of times that the key is pressed. The key which was pressed in the past, is not counted. The key which is pressed hereafter is counted. Pressing any key increases the number after K.

The number after J indicates the number of rotations that the JOG dial is rotated. Turning the JOG dial clockwise increases the number after J. Turning the JOG dial counter-clockwise decreases the number after J.

The number after V indicates the number of rotations that the VOLUME dial is rotated. Turning the VOLUME dial clockwise increases the number after V. Turning the VOLUME dial counter-clockwise decreases the number after V.

To exit this mode, perform the "Cold Reset" (reset clearing memory) as described below.

GENERAL TEST MODE

(INCLUDING AMPLIFIER AND TUNER)

Press the REPEAT, ENTER/NEXT and CLOCK TIMER SET buttons simultaneously while the main power is on.

1. Sound volume display segment starts blinking.
2. The tuning enters the PRESET mode.
3. Rotating the VOLUME control clockwise increases the volume level to maximum.
Rotating the VOLUME control counter-clockwise decreases the volume level to minimum.
4. Pressing the MUSIC key decreases the equalizer curve to minimum and "EQ CHECK" appears on the display.
Pressing the MOVIE key increases the equalizer curve to maximum.
Pressing the GAME key makes the equalizer curve flat.
5. Pressing any of the DBFB, GROOVE or SURROUND key disappears "EQ CHECK" on the display.

To exit this mode, perform the "Cold Reset" (reset clearing memory) as described below.

AGING MODE

1. CD aging mode

To execute the CD aging, set the three discs to the CD tray and set the function to CD. REPEAT, ENTER/NEXT and LOOP buttons simultaneously. The CD aging mode starts and the disc calendar starts blinking.

2. Tape aging mode

To execute the tape aging, set the two tapes to the tape A and B drives. Set the function to TAPE. Press the REPEAT, ENTER/NEXT and LOOP buttons simultaneously. Press the A forward key to start the tape aging mode. "AGING" appears on the display.

CD SERVICE MODE

Turn on the main power. Press the REPEAT, ENTER/NEXT and KARAOKE PON/MPX buttons simultaneously. VACS toggles between ON and OFF.

VACS LEVEL DISPLAY

Turn on the main power. Press the EDIT, ENTER/NEXT and KARAOKE PON/MPX buttons simultaneously. VACS level appears on the display.

CD SHIP MODE

Turn on the main power. Press the PLAY MODE and POWER buttons simultaneously. The main power is turned off and LOCK appears on the display.

TUNER STEP CHANGE

Turn on the main power. Set the function to TUNER. Select MW band from the present tuning. Turn off the main power. Press the ENTER/NEXT and POWER buttons simultaneously. The main power is turned on and the changed step appears on the display.

MD/VIDEO 1 FUNCTION CHANGE

Press the FUNCTION and POWER buttons simultaneously while the main power is off. When the function is set to VIDEO 1, the function is changed to MD and MD appears on the display. When the function is set to MD, the function is changed to VIDEO 1 and VIDEO 1 appears on the display.

COLD RESET (Reset which clears memory.)

Press the REPEAT, ENTER/NEXT and DISPLAY buttons simultaneously at any time. The system is reset while clearing memory.

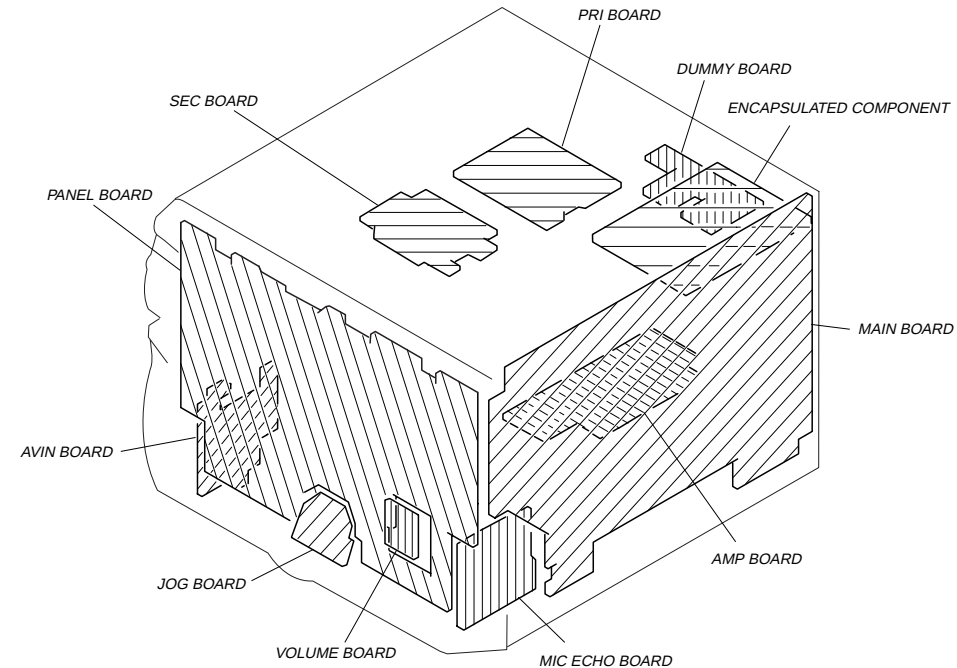
HOT RESET

(Reset which does not clear memory.)

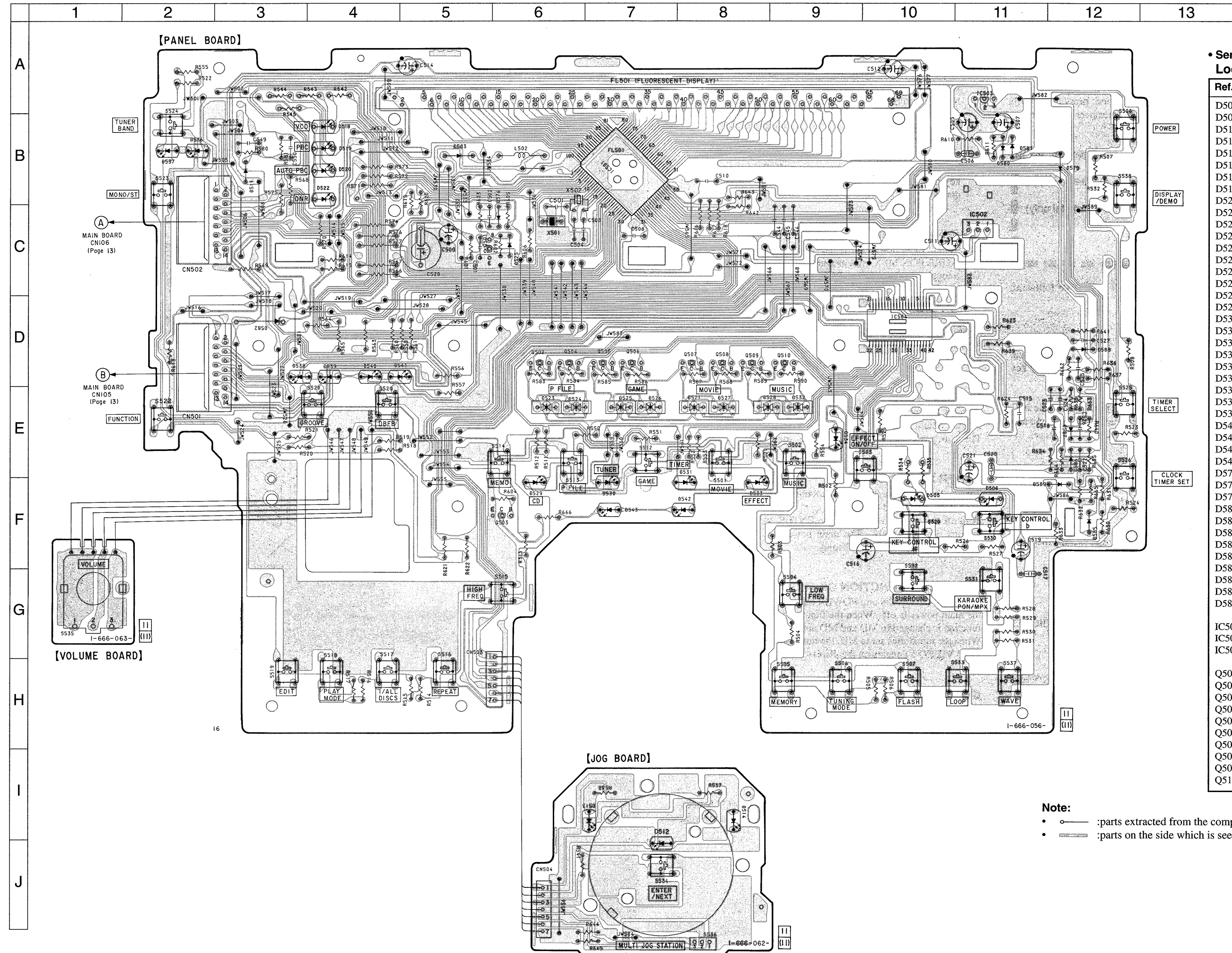
Press the REPEAT, ENTER/NEXT and TIMER SELECT buttons simultaneously at any time. The system is reset without clearing memory.

SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION



3-2. PRINTED WIRING BOARD — PANEL SECTION —

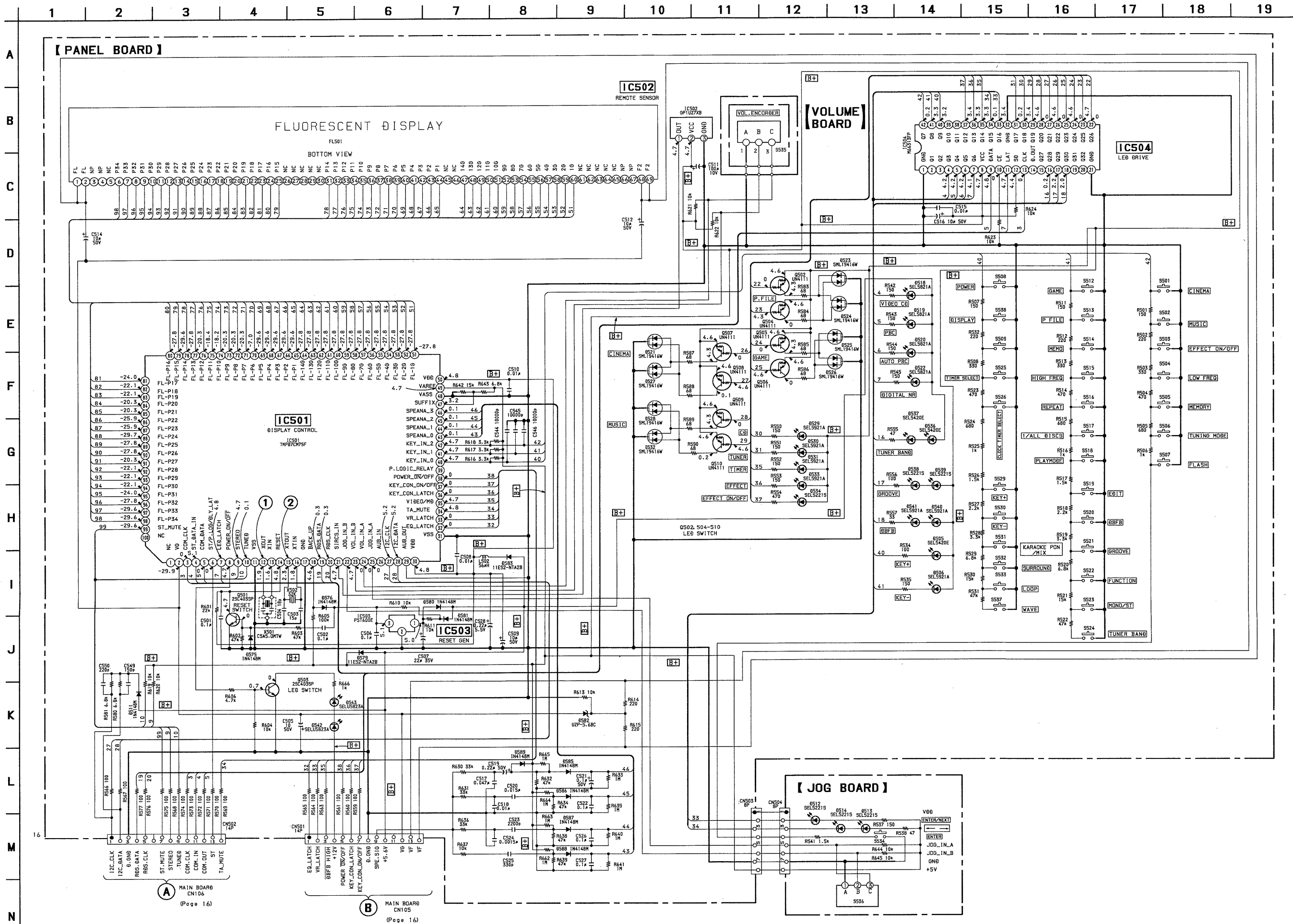


• Semiconductor Location

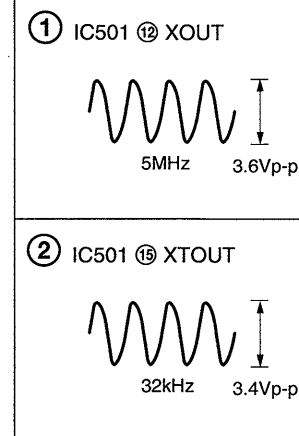
Ref. No.	Location
D505	F-10
D506	F-11
D511	B-3
D512	J-7
D513	I-7
D514	I-8
D518	B-4
D519	B-4
D520	B-4
D521	E-8
D522	B-4
D523	E-6
D524	E-6
D525	E-7
D526	E-7
D527	E-8
D528	E-9
D529	F-6
D530	F-7
D531	F-8
D532	E-9
D533	F-8
D534	E-9
D536	B-2
D537	B-2
D538	D-3
D539	D-4
D540	D-4
D541	D-4
D542	F-8
D543	F-7
D575	C-6
D576	C-6
D579	B-12
D580	B-11
D581	B-11
D582	D-3
D583	B-5
D585	F-12
D586	E-12
D587	E-12
D588	D-12
D589	F-12
IC501	B-7
IC503	A-11
IC504	D-10
Q501	C-5
Q502	D-6
Q503	F-6
Q504	D-6
Q505	D-7
Q506	D-7
Q507	D-8
Q508	D-8
Q509	D-8
Q510	D-9

Note:
• — :parts extracted from the component side.
• — :parts on the side which is seen.

3-3. SCHEMATIC DIAGRAM — PANEL SECTION —



• Waveform



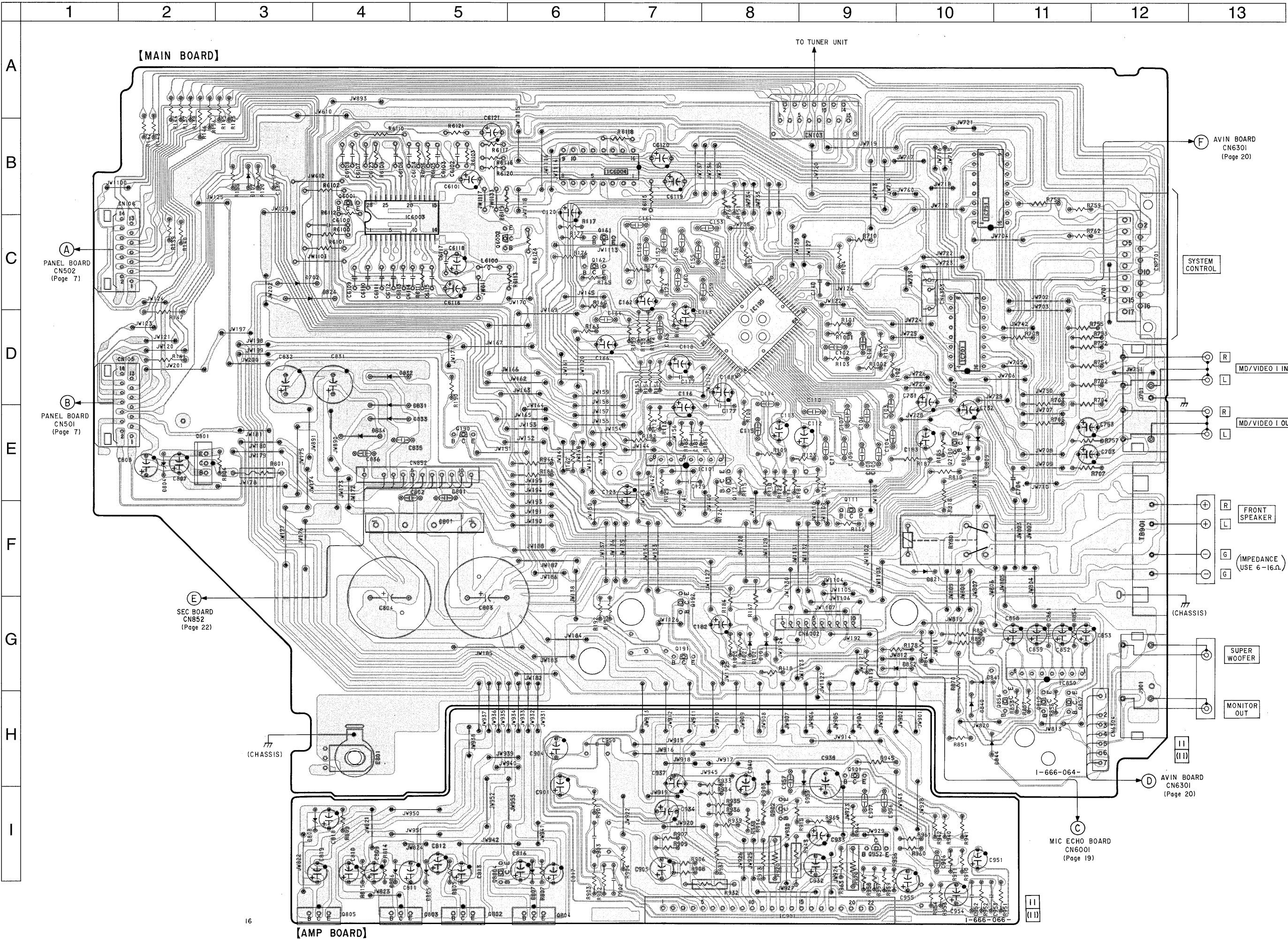
Note:

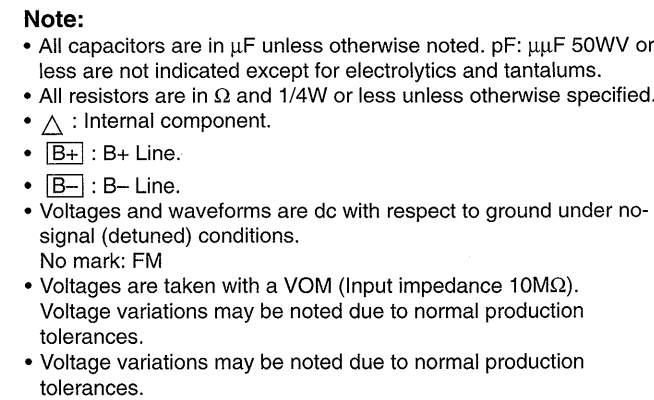
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- $\triangle$: Internal component.
- [B+]: B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
No mark: FM
- 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.

Ref. No.	Location
D101	G-8
D102	B-3
D702	C-3
D801	F-5
D804	E-2
D805	I-5
D806	I-4
D807	I-6
D808	I-4
D809	E-10
D810	E-10
D821	F-10
D824	C-3
D831	D-4
D832	D-4
D833	E-4
D834	E-4
D840	H-10
D841	G-10
D844	H-10
D852	G-9
D903	H-8
D953	H-9
D1021	G-8
IC101	E-7
IC105	D-8
IC701	D-10
IC751	B-10
IC850	G-11
IC901	J-8
IC6003	C-4
IC6004	B-6
Q111	F-9
Q112	E-8
Q161	C-6
Q162	C-6
Q190	E-5
Q191	G-7
Q192	G-7
Q801	E-2
Q802	J-5
Q803	J-4
Q804	J-6
Q805	J-4
Q810	H-11
Q856	H-11
Q857	H-11
Q901	H-9
Q902	I-8
Q952	I-9
Q2100	E-10
Q6001	B-4
Q6002	C-5
Q8004	I-5

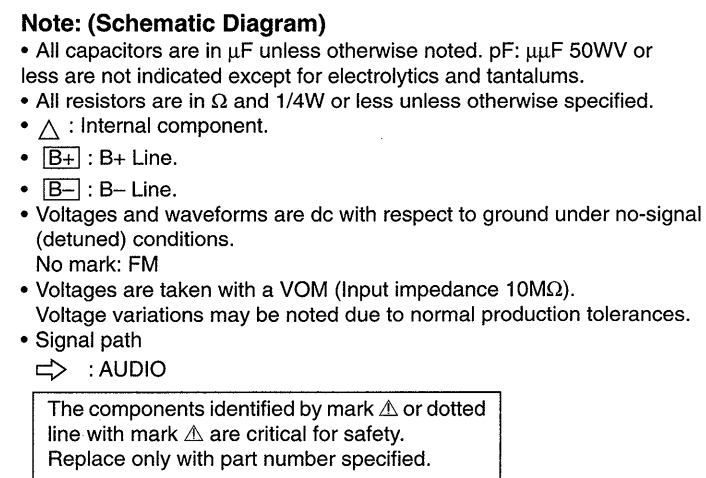
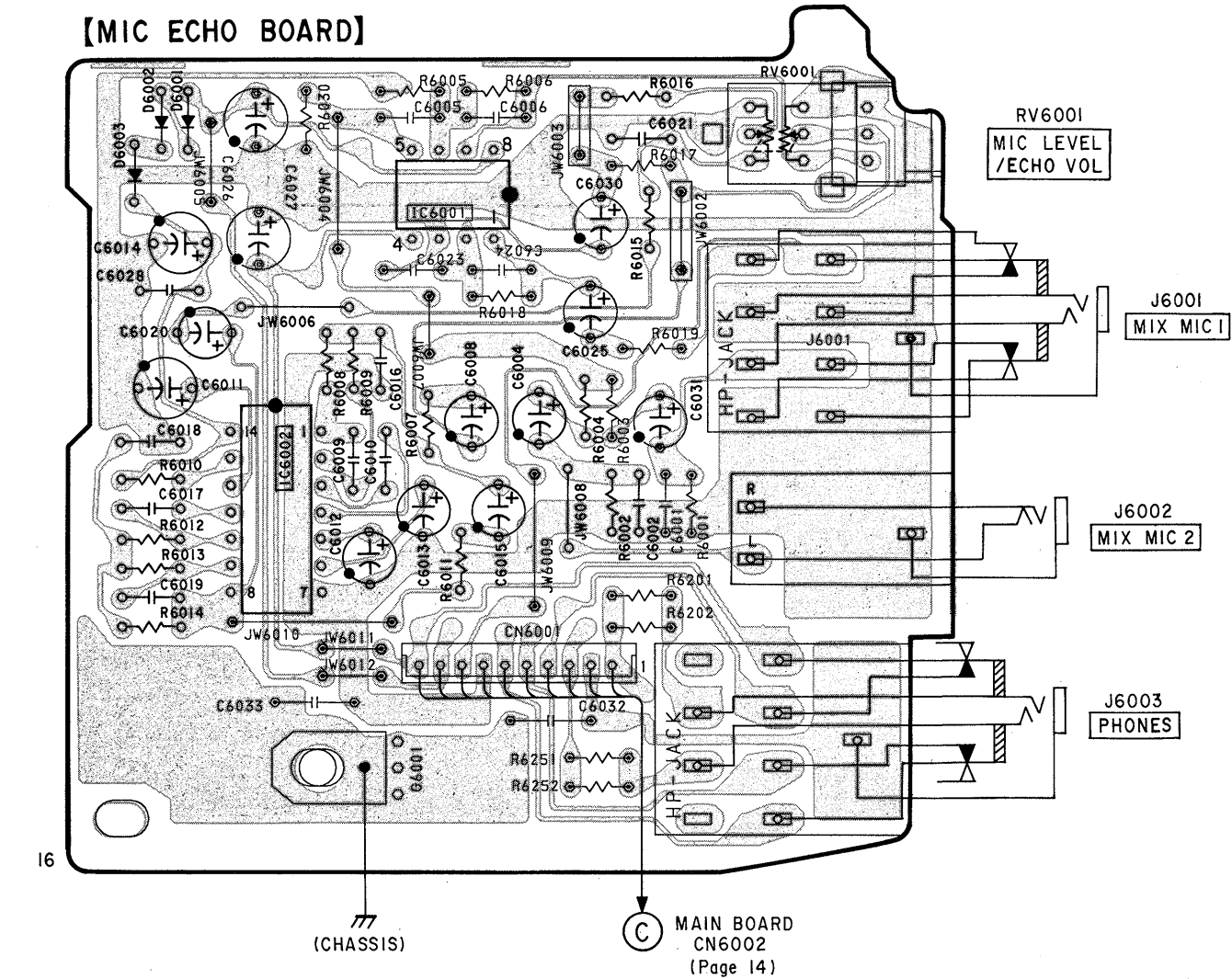
Note:

- — : parts extracted from the component side.
- — : parts on the side which is seen.



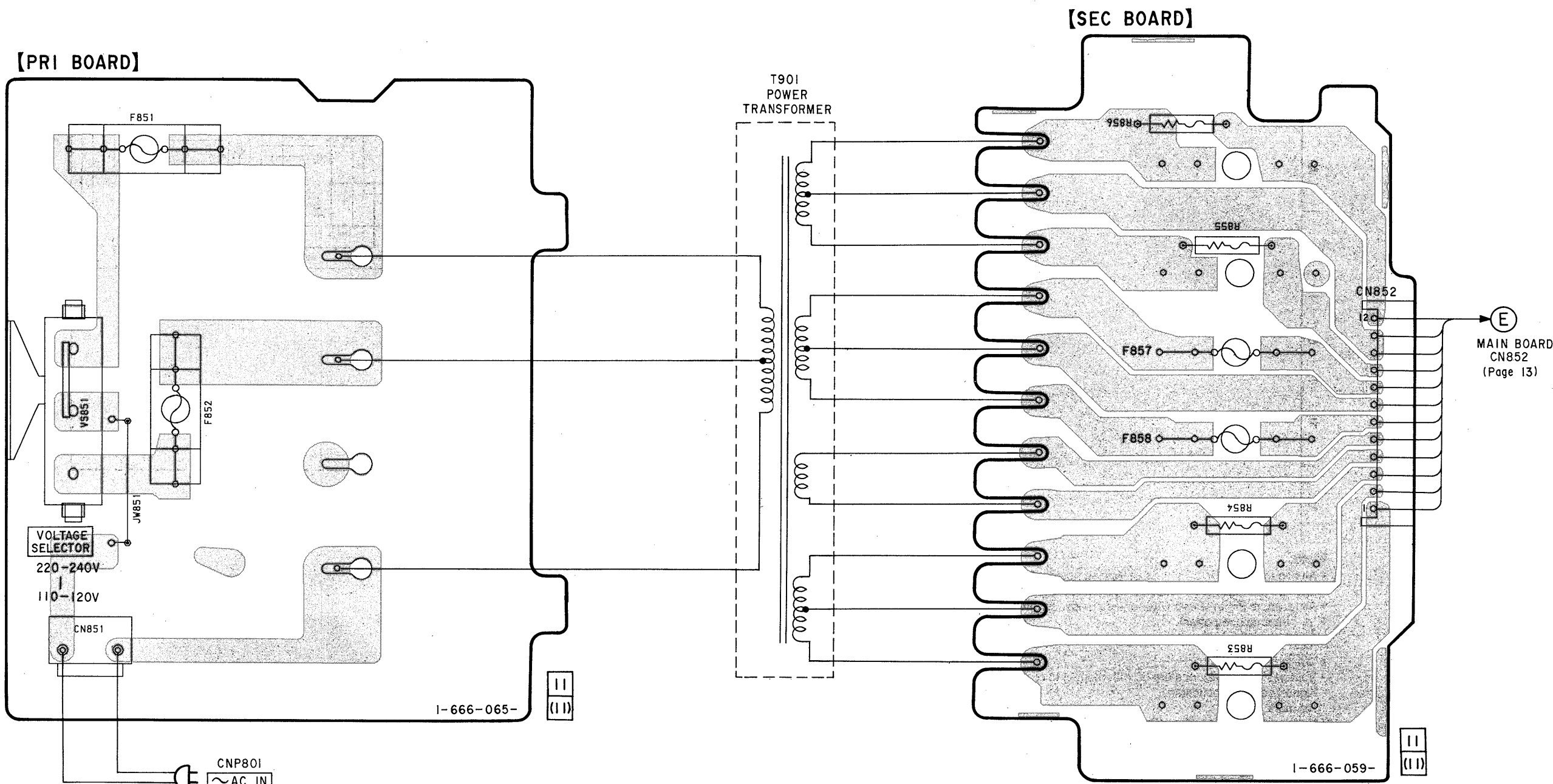


- Signal path
 - ➡ : TUNER/AUDIO
 - : PB
 - ➦ : CD



Note: (Printed Wiring Board)

- — : parts extracted from the component side.
- ▬ : parts on the side which is seen.



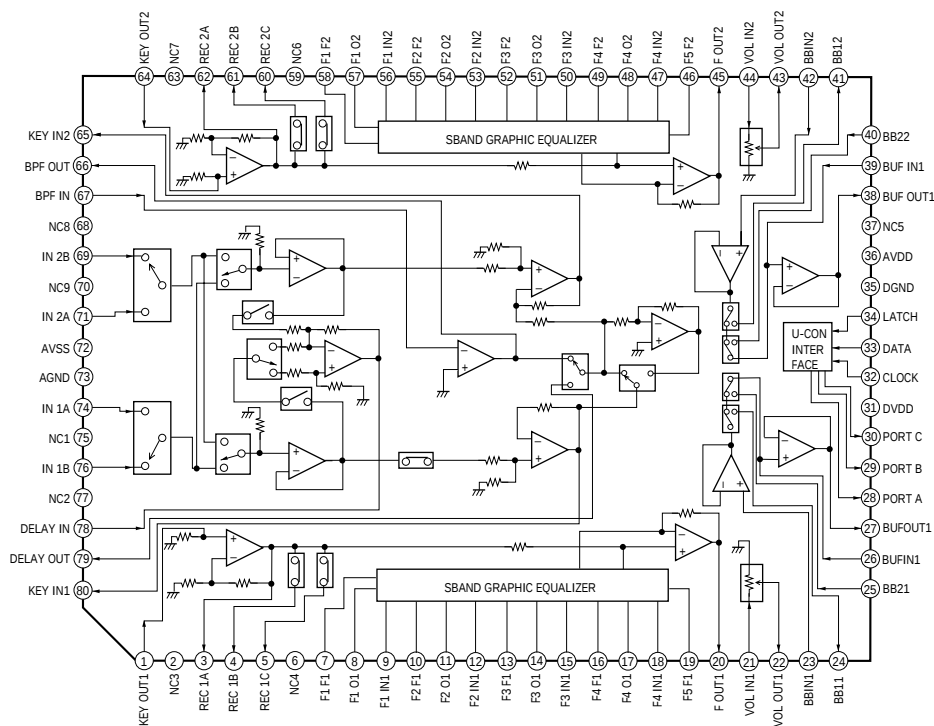
3-7. IC PIN FUNCTION

• IC501 TMP87CM75F-6608 (DISPLAY CONTROL)

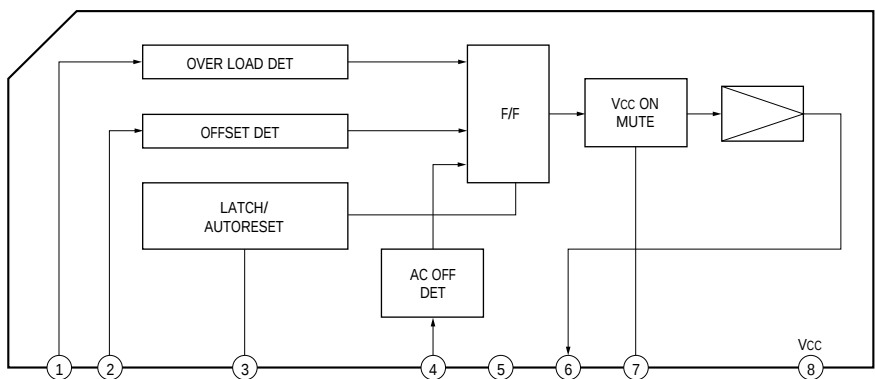
Pin No.	Pin Name	I/O	Description
1	NC	—	Not used
2	VG	—	POWER SUPPLY FOR VFT DRIVER
3	COM CLK	O	Transfer clock output serial data
4	ST DATA IN	I	Serial data input
5	COM DATA	O	Serial data output
6	ST CE	O	Chip enable output
7	LED LAT	O	Latch output to IC504
8	POWER ON/OFF	O	H : D542, D543 ON
9	STEREO	I	Stereo signal input
10	TUNED	I	Tuned signal input
11	Vss	—	Power supply (Ground)
12	X OUT	O	Oscillator connection terminal (8MHz)
13	X IN	I	Oscillator connection terminal (8MHz)
14	RESET	I	Reset signal input terminal
15	XT OUT	O	Oscillator connection terminal (32.768kHz)
16	XT IN	I	Oscillator connection terminal (32.768kHz)
17	GND	—	Not used (Ground)
18	BACK UP	I	AC Power supply off
19	RDS DATA	I	RDS DATA input (European model only)
20	RDS CLK	I	RDS clock input (European model only)
21	SIRCS IN	I	SIRCS signal input
22	JOG IN B	I	JOG dial encoder input
23	VOL IN B	I	Volum encoder input
24	VOL IN A	I	Volum encoder input
25	JOG IN A	I	JOG dial encoder input
26	AUB IN	—	Not used
27	12C CLK	I/O	12C clock I/O
28	12C DATA	I/O	12C data I/O
29	AUB OUT	—	Not used
30	VDD	—	Power supply (5V)
31	Vss	—	Power supply (Ground)
32	EQ LAT	O	Latch output to IC105
33	VR LAT	O	Latch output to IC2002
34	TA MUTE	O	Mute output to transistor L : Mute ON
35	VIDEO MD	O	DBFB level control output L : DBFB HIGH
36	KEY CON LAT	O	Latch output to IC6003
37	KEY CON ON/OFF	O	H : Key con ON
38	POWER ON/OFF	O	L : SP relay ON
39	P LOG RELAY	—	Not used
40 to 42	KEY IN 0 to 2	I	Key data input (A/D converter)
43 to 46	SPEANA 0 to 3	I	Spectrum analyzer signal input
47	SUFFIX	I	Input for model select
48	VASS	—	Power supply for analog (Ground)
49	VAREF	—	Power supply (+5V)
50	VDD	—	Power supply (Ground)
51 to 64	FL-1G to 14G	O	Grid output to FL501
65 to 98	FL-P1 to P34	O	Segment output to FL501
99	ST MUTE	O	H : MUTE L : Signal Receiving
100	NC	—	Not used

3-8. IC BLOCK DIAGRAMS

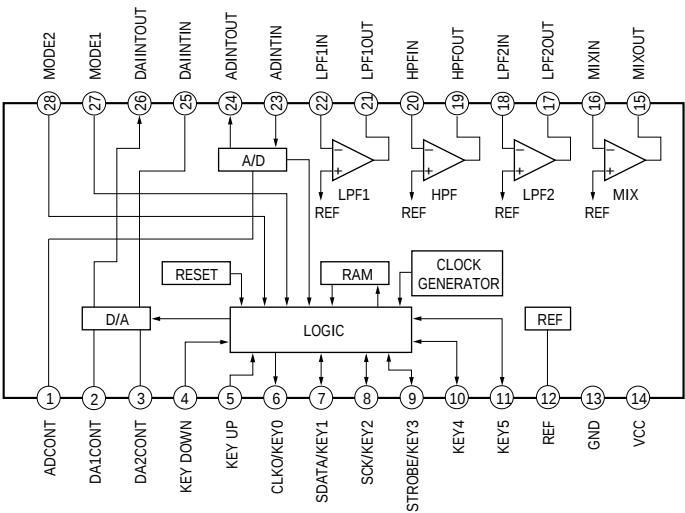
IC105 M62427FP-A



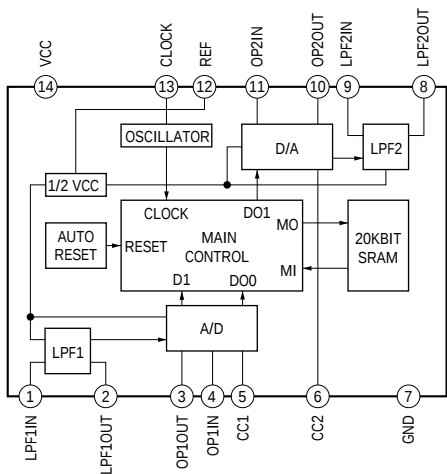
IC850 μPC1237HA



IC6003 M65847FP



IC6002 M65850P



SECTION 4 EXPLODED VIEWS

Note:

- XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

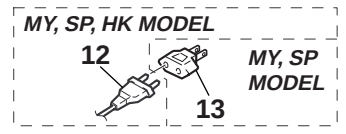
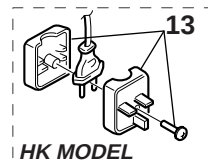
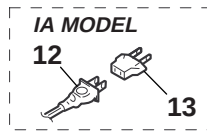
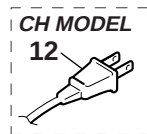
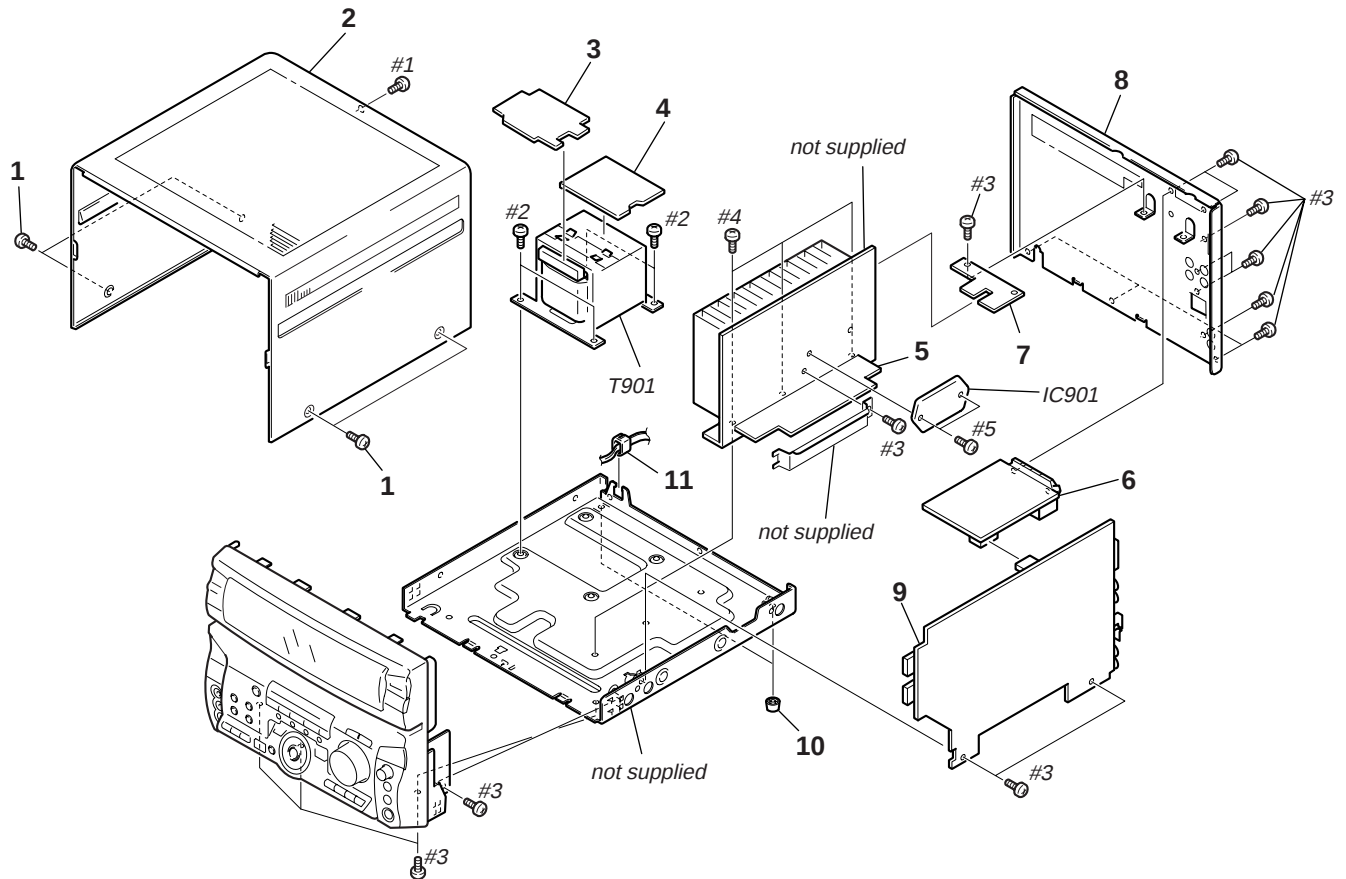
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

Abbreviation

MY : Malaysia SP : Singapore
HK : Hong Kong IA : Indonesian
CH : Chinese

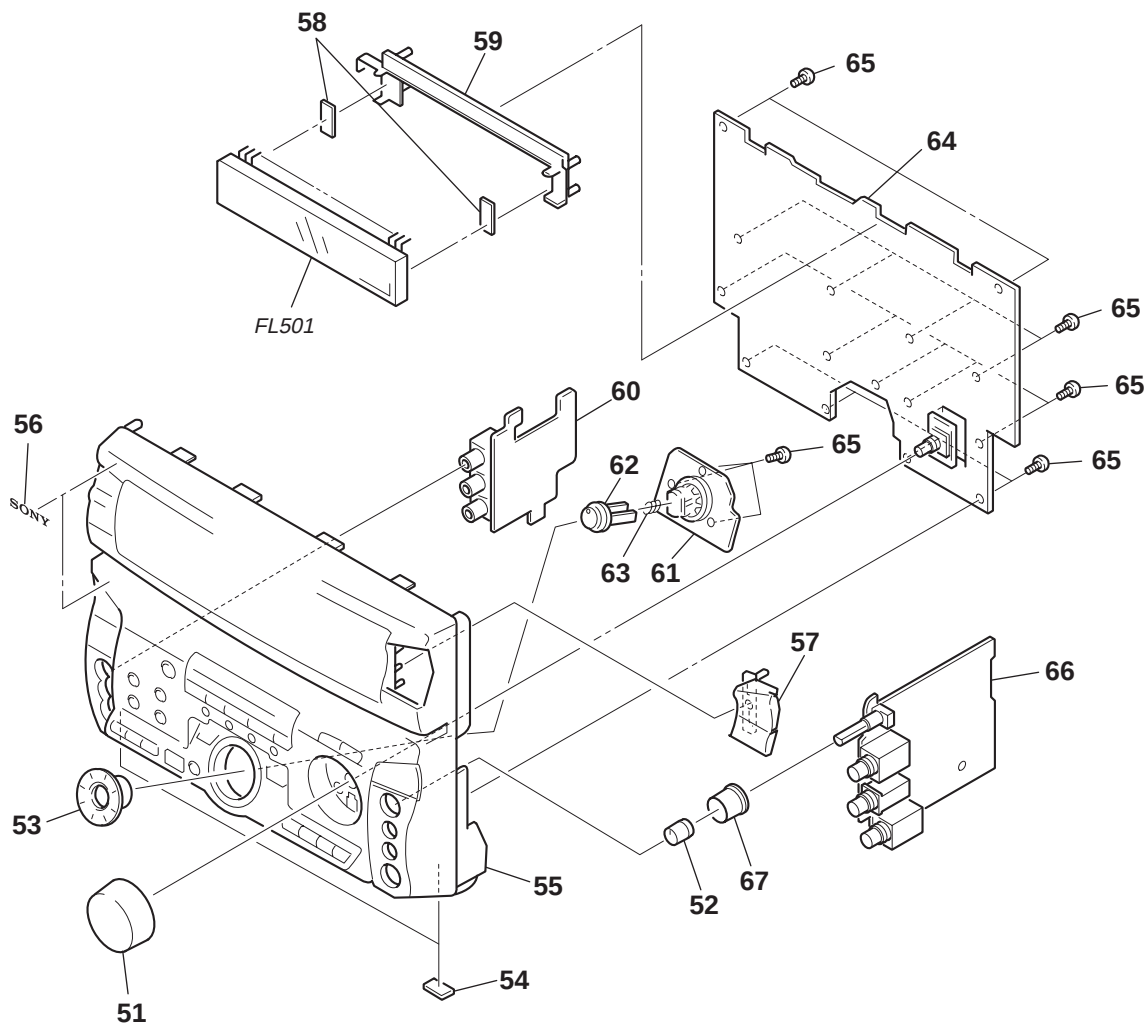
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	3-363-099-11	SCREW (CASE 3 TP2)		* 9	A-4403-202-A	MAIN BOARD, COMPLETE	
* 2	4-991-364-11	CASE		10	4-970-381-11	FOOT (REAR)	
* 3	1-666-059-11	SEC BOARD		* 11	3-703-244-00	BUSHING (2104), CORD (IA)	
* 4	1-666-065-11	PRI BOARD		11	3-703-571-11	BUSHING (S) (4516), CORD (MY,SP,HK,CH)	
* 5	1-666-066-11	AMP BOARD		Δ 12	1-777-071-21	CORD, POWER (MY,SP,HK)	
6	1-233-546-21	ENCAPSULATED COMPONENT		Δ 12	1-782-315-11	CORD, POWER (IA)	
* 7	1-666-067-11	DUMMY BOARD		Δ 12	1-782-464-21	CORD, POWER (CH)	
* 8	4-991-361-01	PANEL (VCD), BACK (MY,SP)		Δ 13	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
* 8	4-991-361-11	PANEL (VCD), BACK (CH)		Δ 13	1-569-008-21	ADAPTOR, CONVERSION 2P (MY,SP)	
* 8	4-991-361-21	PANEL (VCD), BACK (HK)		Δ 13	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
* 8	4-991-361-31	PANEL (VCD), BACK (IA)		Δ T901	1-431-365-11	TRANSFORMER, POWER	

4-2. PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	4-991-318-01	KNOB (VOL)		* 60	1-606-060-11	AVIN BOARD	
52	4-991-326-01	KNOB (CENTER)		* 61	1-666-062-11	JOG BOARD	
53	4-991-317-01	KNOB (JOG)		62	X-4948-611-1	BUTTON (E/N) ASSY	
54	4-977-358-11	CUSHION		63	4-984-085-01	SPRING (ENTER), COMPRESSION	
55	X-4948-895-1	PANEL ASSY, FRONT		* 64	A-4403-204-A	PANEL BOARD, COMPLETE	
56	4-962-708-11	EMBLEM (4-A), SONY		65	4-951-620-01	SCREW (2.6X8), +BVTP	
57	X-4948-612-1	DISPLAY ASSY, BUTTON		* 66	A-4403-207-A	MIC ECHO BOARD, COMPLET	
* 58	4-932-810-11	CUSHION (FL)		67	4-991-327-01	KNOB (CONTROL)	
* 59	4-986-870-01	HOLDER, FL TUBE		FL501	1-517-618-11	INDICATOR TUBE, FLUORESCENT	

SECTION 5

ELECTRICAL PARTS LIST

Note:

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

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

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

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

• CAPACITORS:

uF: μ F

• RESISTORS

All resistors are in ohms.

METAL: metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

• COILS

uH: μ H

• SEMICONDUCTORS

In each case, u: μ , for example:uA...: μ A..., uPA..., μ PA...,uPB..., μ PB..., uPC..., μ PC...,uPD..., μ PD...

• Abbreviation

MY : Malaysia

SP : Singapore

HK : Hong Kong

IA : Indonesian

CH : Chinese

Ref. No.	Part No.	Description	Remarks				Ref. No.	Part No.	Description	Remarks			
*	1-666-066-11	AMP BOARD *****							< TRANSISTOR >				
		< CAPACITOR >					Q802	8-729-209-15	TRANSISTOR 2SD2012				
							Q803	8-729-209-15	TRANSISTOR 2SD2012				
							Q804	8-729-209-15	TRANSISTOR 2SD2012				
C809	1-104-664-11	ELECT	47uF	20%	25V		Q805	8-729-141-83	TRANSISTOR 2SB1094-LK				
C810	1-104-664-11	ELECT	47uF	20%	25V		Q901	8-729-900-36	TRANSISTOR DTC124ES				
C811	1-126-933-11	ELECT	100uF	20%	16V								
C812	1-104-664-11	ELECT	47uF	20%	25V		Q902	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
C813	1-104-664-11	ELECT	47uF	20%	25V		Q952	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
							Q8004	8-729-620-05	TRANSISTOR 2SC2603-EF				
C816	1-104-664-11	ELECT	47uF	20%	25V				< RESISTOR >				
C817	1-126-933-11	ELECT	100uF	20%	10V								
C818	1-104-664-11	ELECT	47uF	20%	25V								
C819	1-104-664-11	ELECT	47uF	20%	25V		R805	1-249-428-11	CARBON 8.2K 5%	1/4W	F		
C901	1-126-961-11	ELECT	2.2uF	20%	50V		R807	1-247-843-11	CARBON 3.3K 5%	1/4W			
							R809	1-249-428-11	CARBON 8.2K 5%	1/4W	F		
C902	1-162-294-31	CERAMIC	0.001uF	10%	50V		R814	1-249-421-11	CARBON 2.2K 5%	1/4W	F		
C903	1-162-282-31	CERAMIC	100PF	10%	50V		R815	1-249-421-11	CARBON 2.2K 5%	1/4W	F		
C904	1-126-967-11	ELECT	47uF	20%	50V								
C905	1-126-967-11	ELECT	47uF	20%	50V		R901	1-249-417-11	CARBON 1K 5%	1/4W	F		
C906	1-136-495-11	FILM	0.068uF	5%	50V		R902	1-249-437-11	CARBON 47K 5%	1/4W			
							R903	1-249-412-11	CARBON 390 5%	1/4W	F		
C907	1-136-495-11	FILM	0.068uF	5%	50V		R904	1-249-437-11	CARBON 47K 5%	1/4W			
C932	1-128-552-51	ELECT	47uF	20%	63V		R906	1-249-429-11	CARBON 10K 5%	1/4W			
C933	1-128-581-11	ELECT	4.7uF	20%	63V								
C934	1-128-552-51	ELECT	47uF	20%	63V		R907	1-249-429-11	CARBON 10K 5%	1/4W			
C937	1-126-965-11	ELECT	22uF	20%	50V		R908	1-249-429-11	CARBON 10K 5%	1/4W			
							R909	1-249-429-11	CARBON 10K 5%	1/4W			
C938	1-126-934-11	ELECT	220uF	20%	16V		R910	1-249-397-11	CARBON 22 5%	1/4W	F		
C940	1-128-581-11	ELECT	4.7uF	20%	63V		R911	1-249-397-11	CARBON 22 5%	1/4W	F		
C950	1-162-306-11	CERAMIC	0.01uF	20%	16V								
C951	1-126-963-11	ELECT	4.7uF	20%	50V		R913	1-249-417-11	CARBON 1K 5%	1/4W	F		
C952	1-162-294-31	CERAMIC	0.001uF	10%	50V		R914	1-249-431-11	CARBON 15K 5%	1/4W			
							R915	1-249-441-11	CARBON 100K 5%	1/4W			
C953	1-162-282-31	CERAMIC	100PF	10%	50V		△R920	1-217-156-00	WIREWOUND 0.22 10%	5W	F		
C954	1-126-967-11	ELECT	47uF	20%	50V		△R932	1-212-881-11	FUSIBLE 100 5%	1/4W	F		
C955	1-126-967-11	ELECT	47uF	20%	50V								
C956	1-136-495-11	FILM	0.068uF	5%	50V		R933	1-249-421-11	CARBON 2.2K 5%	1/4W	F		
C957	1-136-495-11	FILM	0.068uF	5%	50V		R934	1-249-421-11	CARBON 2.2K 5%	1/4W	F		
		< DIODE >					R935	1-249-421-11	CARBON 2.2K 5%	1/4W	F		
							R936	1-249-421-11	CARBON 2.2K 5%	1/4W	F		
							R937	1-249-437-11	CARBON 47K 5%	1/4W			
D805	8-719-933-50	DIODE HZS7C2L											
D806	8-719-001-57	DIODE UZL-11H3-TP					R938	1-249-441-11	CARBON 100K 5%	1/4W			
D807	8-719-000-81	DIODE UZL-7L3					R939	1-249-433-11	CARBON 22K 5%	1/4W			
D808	8-719-933-50	DIODE HZS7C2L					R940	1-249-433-11	CARBON 22K 5%	1/4W			
D903	8-719-987-63	DIODE 1N4148M					R941	1-249-429-11	CARBON 10K 5%	1/4W			
							R942	1-249-413-11	CARBON 470 5%	1/4W	F		
D953	8-719-987-63	DIODE 1N4148M					△R943	1-212-881-11	FUSIBLE 100 5%	1/4W	F		
		< IC >					R945	1-249-417-11	CARBON 1K 5%	1/4W	F		
							R951	1-249-417-11	CARBON 1K 5%	1/4W	F		
IC901	8-749-921-04	IC STK-4211MK-2					R952	1-249-437-11	CARBON 47K 5%	1/4W			
							R953	1-249-412-11	CARBON 390 5%	1/4W	F		

Ref. No.	Part No.	Description			Remarks
R954	1-249-437-11	CARBON	47K	5%	1/4W
R956	1-249-429-11	CARBON	10K	5%	1/4W
R957	1-249-429-11	CARBON	10K	5%	1/4W
R958	1-249-429-11	CARBON	10K	5%	1/4W
R959	1-249-429-11	CARBON	10K	5%	1/4W
R960	1-249-397-11	CARBON	22	5%	1/4W
R961	1-249-397-11	CARBON	22	5%	1/4W
R963	1-249-417-11	CARBON	1K	5%	1/4W
R964	1-249-431-11	CARBON	15K	5%	1/4W
R965	1-249-441-11	CARBON	100K	5%	1/4W
△ R970	1-217-156-00	WIREWOUND	0.22	10%	5W
△ R974	1-212-849-00	FUSIBLE	4.7	5%	1/4W

*	1-666-060-11	AVIN BOARD	*****		
		< CAPACITOR >			
C6301	1-162-286-31	CERAMIC	220PF	10%	50V
C6302	1-162-286-31	CERAMIC	220PF	10%	50V
C6303	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN6301	1-564-524-11	PLUG, CONNECTOR 9P			
		< DIODE >			
D6300	8-719-987-63	DIODE 1N4148M			
		< JACK >			
J6301	1-779-583-11	JACK, PIN 3P (AV INPUT)			
		< RESISTOR >			
R6301	1-249-417-11	CARBON	1K	5%	1/4W
R6302	1-249-417-11	CARBON	1K	5%	1/4W
R6303	1-249-441-11	CARBON	100K	5%	1/4W
R6304	1-249-441-11	CARBON	100K	5%	1/4W
		< RELAY >			
RY6300	1-515-622-11	RELAY			

*	1-666-062-11	JOG BOARD	*****		
		< DIODE >			
D512	8-719-046-44	DIODE SEL5221S (ENTER/NEXT)			
D513	8-719-046-44	DIODE SEL5221S (→)			
D514	8-719-046-44	DIODE SEL5221S (←)			
		< RESISTOR >			
R537	1-249-407-11	CARBON	150	5%	1/4W
R538	1-249-401-11	CARBON	47	5%	1/4W
R541	1-249-419-11	CARBON	1.5K	5%	1/4W
R644	1-249-429-11	CARBON	10K	5%	1/4W
R645	1-249-429-11	CARBON	10K	5%	1/4W
		< SWITCH >			
S534	1-762-751-11	SWITCH, TACTILE (ENTER/NEXT)			
S536	1-762-874-11	SWITCH, JOG (MULTI JOG STATION)			

Ref. No.	Part No.	Description	Remarks			
*	A-4403-202-A	MAIN BOARD, COMPLETE	*****			
		< CAPACITOR >				
C101	1-136-167-00	FILM	0.15uF	5%	50V	
C102	1-130-471-00	MYLAR	0.001uF	5%	50V	
C103	1-136-169-00	FILM	0.22uF	5%	50V	
C104	1-136-169-00	FILM	0.22uF	5%	50V	
C105	1-136-495-11	FILM	0.068uF	5%	50V	
C106	1-136-495-11	FILM	0.068uF	5%	50V	
C107	1-137-440-11	FILM	0.018uF	5%	50V	
C108	1-137-440-11	FILM	0.018uF	5%	50V	
C109	1-137-437-11	FILM	0.0056uF	5%	50V	
C110	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C111	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C112	1-126-964-11	ELECT	10uF	20%	50V	
C113	1-126-963-11	ELECT	4.7uF	20%	50V	
C114	1-136-166-00	FILM	0.12uF	5%	50V	
C115	1-136-166-00	FILM	0.12uF	5%	50V	
C116	1-126-961-11	ELECT	2.2uF	20%	50V	
C117	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C118	1-126-964-11	ELECT	10uF	20%	50V	
C120	1-126-959-11	ELECT	0.47uF	20%	50V	
C123	1-126-963-11	ELECT	4.7uF	20%	50V	
C129	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C130	1-164-159-11	CERAMIC	0.1uF		50V	
C140	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C153	1-136-169-00	FILM	0.22uF	5%	50V	
C154	1-136-169-00	FILM	0.22uF	5%	50V	
C155	1-136-495-11	FILM	0.068uF	5%	50V	
C156	1-136-495-11	FILM	0.068uF	5%	50V	
C157	1-137-440-11	FILM	0.018uF	5%	50V	
C158	1-137-440-11	FILM	0.018uF	5%	50V	
C159	1-137-437-11	FILM	0.0056uF	5%	50V	
C160	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C161	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C162	1-126-964-11	ELECT	10uF	20%	50V	
C163	1-126-963-11	ELECT	4.7uF	20%	50V	
C164	1-136-166-00	FILM	0.12uF	5%	50V	
C165	1-136-166-00	FILM	0.12uF	5%	50V	
C166	1-126-961-11	ELECT	2.2uF	20%	50V	
C177	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C181	1-162-215-31	CERAMIC	47PF	5%	50V	
C182	1-126-960-11	ELECT	1uF	20%	50V	
C183	1-126-961-11	ELECT	2.2uF	20%	50V	
C188	1-126-964-11	ELECT	10uF	20%	50V	
C703	1-126-963-11	ELECT	4.7uF	20%	50V	
C731	1-126-964-11	ELECT	10uF	20%	50V	
C732	1-126-964-11	ELECT	10uF	20%	50V	
C753	1-126-963-11	ELECT	4.7uF	20%	50V	
C801	1-136-165-00	FILM	0.1uF	5%	50V	
C802	1-136-165-00	FILM	0.1uF	5%	50V	
C803	1-104-482-11	ELECT	4700uF	20%	63V	
C804	1-104-482-11	ELECT	4700uF	20%	63V	

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			Ref. No.	Part No.	Description	Remarks		
C807	1-126-964-11	ELECT	10uF	20%	50V			< TERMINAL >			
C808	1-126-948-11	ELECT	100uF	20%	35V						
C831	1-126-942-61	ELECT	1000uF	20%	25V						
C832	1-126-942-61	ELECT	1000uF	20%	25V						
C835	1-136-165-00	FILM	0.1uF	5%	50V			< IC >			
C836	1-136-165-00	FILM	0.1uF	5%	50V						
C852	1-126-923-11	ELECT	220uF	20%	10V						
C853	1-126-933-11	ELECT	100uF	20%	10V						
C858	1-104-664-11	ELECT	47uF	20%	25V						
C859	1-126-961-11	ELECT	2.2uF	20%	50V						
C861	1-164-159-11	CERAMIC	0.1uF		50V						
C6100	1-162-284-31	CERAMIC	150PF	10%	50V						
C6101	1-126-964-11	ELECT	10uF	20%	50V						
C6102	1-162-290-31	CERAMIC	470PF	10%	50V			< JACK >			
C6103	1-162-291-31	CERAMIC	560PF	10%	50V						
C6104	1-249-429-11	CARBON	10K	5%	1/4W						
C6106	1-162-294-31	CERAMIC	0.001uF	10%	50V						
C6107	1-164-159-11	CERAMIC	0.1uF		50V			< COIL >			
C6108	1-164-159-11	CERAMIC	0.1uF		50V						
C6109	1-136-495-11	FILM	0.068uF	5%	50V						
C6110	1-136-495-11	FILM	0.068uF	5%	50V			< TRANSISTOR >			
C6111	1-136-495-11	FILM	0.068uF	5%	50V						
C6112	1-162-286-31	CERAMIC	220PF	10%	50V						
C6113	1-162-286-31	CERAMIC	220PF	10%	50V						
C6114	1-162-294-31	CERAMIC	0.001uF	10%	50V						
C6115	1-164-159-11	CERAMIC	0.1uF		50V						
C6116	1-126-967-11	ELECT	47uF	20%	10V						
C6117	1-164-159-11	CERAMIC	0.1uF		50V						
C6118	1-124-584-00	ELECT	100uF	20%	10V						
C6119	1-126-964-11	ELECT	10uF	20%	50V						
C6120	1-126-964-11	ELECT	10uF	20%	50V						
C6121	1-126-964-11	ELECT	10uF	20%	50V						
C6123	1-162-306-11	CERAMIC	0.01uF	20%	16V						
C6125	1-249-429-11	CARBON	10K	5%	1/4W						
< CONNECTOR >											
CN103	1-774-289-11	PIN, CONNECTOR (PC BOARD) 15P									
CN105	1-774-336-11	SOCKET, CONNECTOR(PC BOARD) 14P									
CN106	1-774-336-11	SOCKET, CONNECTOR(PC BOARD) 14P									
* CN6002	1-568-937-11	PIN, CONNECTOR 10P									
* CNP701	1-764-017-21	HOUSING,CONNECTOR(PC BOARD) 17P									
< DIODE >											
D101	8-719-987-63	DIODE 1N4148M									
D102	8-719-987-63	DIODE 1N4148M									
D702	8-719-024-99	DIODE 11ES2-NTA2B									
D801	8-719-302-38	DIODE RBV-602-01									
D804	8-719-934-22	DIODE HZS30-2L									
D809	8-719-987-63	DIODE 1N4148M									
D810	8-719-987-63	DIODE 1N4148M									
D821	8-719-987-63	DIODE 1N4148M									
D824	8-719-024-99	DIODE 11ES2-NTA2B									
D831	8-719-024-99	DIODE 11ES2-NTA2B									
D832	8-719-024-99	DIODE 11ES2-NTA2B									
D833	8-719-024-99	DIODE 11ES2-NTA2B									
D834	8-719-024-99	DIODE 11ES2-NTA2B									
D840	8-719-987-63	DIODE 1N4148M									
D841	8-719-987-63	DIODE 1N4148M									
D844	8-719-024-99	DIODE 11ES2-NTA2B									
D852	8-719-987-63	DIODE 1N4148M									
D1021	8-719-987-63	DIODE 1N4148M									
* E801	1-537-738-21	TERMINAL, EARTH									
IC101	8-759-634-50	IC M5218AL									
IC105	8-759-460-02	IC M62427FP-A									
IC701	8-759-000-47	IC MC14051BCP									
IC751	8-759-000-47	IC MC14051BCP									
IC850	8-759-111-68	IC uPC1237HA									
IC6003	8-759-370-84	IC M65847FP									
IC6004	8-759-140-53	IC uPD4053BC									
J701	1-770-614-11	JACK, PIN 4P (MD/VIDEO 1)									
J901	1-779-379-11	JACK, PIN 2P (SUPER WOOFER/MONITOR)									
L6100	1-410-521-11	INDUCTOR 100uH									
Q111	8-729-119-78	TRANSISTOR 2SC403SP-51									
Q112	8-729-119-78	TRANSISTOR 2SC403SP-51									
Q161	8-729-119-78	TRANSISTOR 2SC403SP-51									
Q162	8-729-119-78	TRANSISTOR 2SC403SP-51									
Q190	8-729-900-63	TRANSISTOR DTA124ES									
Q191	8-729-141-26	TRANSISTOR 2SC3622A-LK									
Q192	8-729-141-26	TRANSISTOR 2SC3622A-LK									
Q801	8-729-141-83	TRANSISTOR 2SB1094-LK									
Q810	8-729-900-36	TRANSISTOR DTC124ES									
Q856	8-729-900-36	TRANSISTOR DTC124ES									
Q857	8-729-900-63	TRANSISTOR DTA124ES									
Q2100	8-729-141-26	TRANSISTOR 2SC3622A-LK									
Q6001	8-729-119-78	TRANSISTOR 2SC403SP-51									
Q6002	8-729-900-80	TRANSISTOR DTC114ES									
< RESISTOR >											
R101	1-249-429-11	CARBON 10K	5%		1/4W						
R102	1-249-429-11	CARBON 10K	5%		1/4W						
R103	1-249-429-11	CARBON 10K	5%		1/4W						
R104	1-249-429-11	CARBON 10K	5%		1/4W						
R105	1-249-429-11	CARBON 10K	5%		1/4W						
R108	1-247-897-11	CARBON 560K	5%		1/4W						
R109	1-249-419-11	CARBON 1.5K	5%		1/4W						F
R110	1-249-433-11	CARBON 22K	5%		1/4W						
R111	1-249-441-11	CARBON 100K	5%		1/4W						
R112	1-249-421-11	CARBON 2.2K	5%		1/4W						F
R113	1-249-441-11	CARBON 100K	5%		1/4W						
R115	1-249-439-11	CARBON 68K	5%		1/4W						
R116	1-249-437-11	CARBON 47K	5%		1/4W						
R117	1-247-903-00	CARBON 1M	5%		1/4W						
R118	1-249-417-11	CARBON 1K	5%		1/4W						F
R119	1-249-433-11	CARBON 22K	5%		1/4W						
R120	1-249-437-11	CARBON 47K	5%		1/4W						
R122	1-247-903-00	CARBON 1M	5%		1/4W						
R123	1-249-431-11	CARBON 15K	5%		1/4W						
R124	1-249-437-11	CARBON 47K	5%		1/4W						

MAIN

Ref. No.	Part No.	Description	Remarks
R125	1-247-807-31	CARBON	100 5% 1/4W
R126	1-249-429-11	CARBON	10K 5% 1/4W
R129	1-247-887-00	CARBON	220K 5% 1/4W
R137	1-247-807-31	CARBON	100 5% 1/4W
R138	1-247-807-31	CARBON	100 5% 1/4W
R139	1-247-807-31	CARBON	100 5% 1/4W
R140	1-247-807-31	CARBON	100 5% 1/4W
R141	1-247-807-31	CARBON	100 5% 1/4W
R142	1-247-807-31	CARBON	100 5% 1/4W
R143	1-247-807-31	CARBON	100 5% 1/4W
R144	1-247-807-31	CARBON	100 5% 1/4W
R145	1-247-807-31	CARBON	100 5% 1/4W
R146	1-247-807-31	CARBON	100 5% 1/4W
R147	1-247-807-31	CARBON	100 5% 1/4W
R151	1-249-429-11	CARBON	10K 5% 1/4W
R152	1-249-429-11	CARBON	10K 5% 1/4W
R153	1-249-429-11	CARBON	10K 5% 1/4W
R154	1-249-429-11	CARBON	10K 5% 1/4W
R155	1-249-429-11	CARBON	10K 5% 1/4W
R156	1-249-429-11	CARBON	10K 5% 1/4W
R158	1-247-897-11	CARBON	560K 5% 1/4W
R159	1-249-419-11	CARBON	1.5K 5% 1/4W F
R160	1-249-433-11	CARBON	22K 5% 1/4W
R161	1-249-441-11	CARBON	100K 5% 1/4W
R162	1-249-421-11	CARBON	2.2K 5% 1/4W F
R163	1-249-441-11	CARBON	100K 5% 1/4W
R165	1-249-439-11	CARBON	68K 5% 1/4W
R167	1-249-441-11	CARBON	100K 5% 1/4W
R172	1-247-903-00	CARBON	1M 5% 1/4W
R173	1-249-431-11	CARBON	15K 5% 1/4W
R174	1-249-437-11	CARBON	47K 5% 1/4W
R176	1-249-429-11	CARBON	10K 5% 1/4W
R177	1-249-437-11	CARBON	47K 5% 1/4W
R178	1-249-433-11	CARBON	22K 5% 1/4W
R181	1-247-895-00	CARBON	470K 5% 1/4W
R182	1-247-895-00	CARBON	470K 5% 1/4W
R183	1-249-435-11	CARBON	33K 5% 1/4W
R184	1-249-429-11	CARBON	10K 5% 1/4W
R185	1-247-843-11	CARBON	3.3K 5% 1/4W
R186	1-249-425-11	CARBON	4.7K 5% 1/4W F
R187	1-249-441-11	CARBON	100K 5% 1/4W
R188	1-249-417-11	CARBON	1K 5% 1/4W F
R190	1-249-441-11	CARBON	100K 5% 1/4W
R192	1-249-425-11	CARBON	4.7K 5% 1/4W F
R195	1-249-425-11	CARBON	4.7K 5% 1/4W F
R196	1-247-807-31	CARBON	100 5% 1/4W
R702	1-249-425-11	CARBON	4.7K 5% 1/4W F
R703	1-249-425-11	CARBON	4.7K 5% 1/4W F
R704	1-249-417-11	CARBON	1K 5% 1/4W F
R705	1-249-441-11	CARBON	100K 5% 1/4W
R707	1-249-441-11	CARBON	100K 5% 1/4W
R708	1-249-417-11	CARBON	1K 5% 1/4W F
R710	1-249-417-11	CARBON	1K 5% 1/4W F
R752	1-249-425-11	CARBON	4.7K 5% 1/4W F
R753	1-249-425-11	CARBON	4.7K 5% 1/4W F
R754	1-249-417-11	CARBON	1K 5% 1/4W F
R755	1-249-441-11	CARBON	100K 5% 1/4W
R757	1-249-441-11	CARBON	100K 5% 1/4W

Ref. No.	Part No.	Description	Remarks
R758	1-249-417-11	CARBON	1K 5% 1/4W F
R759	1-249-417-11	CARBON	1K 5% 1/4W F
R760	1-249-417-11	CARBON	1K 5% 1/4W F
R762	1-249-417-11	CARBON	1K 5% 1/4W F
△ R801	1-212-982-00	FUSIBLE	100 5% 1/2W F
R804	1-249-429-11	CARBON	10K 5% 1/4W
R818	1-249-427-11	CARBON	6.8K 5% 1/4W F
R819	1-249-427-11	CARBON	6.8K 5% 1/4W F
R840	1-249-429-11	CARBON	10K 5% 1/4W
R851	1-249-431-11	CARBON	15K 5% 1/4W
R853	1-249-397-11	CARBON	22 5% 1/4W F
R854	1-249-441-11	CARBON	100K 5% 1/4W
R856	1-249-429-11	CARBON	10K 5% 1/4W
R857	1-249-435-11	CARBON	33K 5% 1/4W
R858	1-249-437-11	CARBON	47K 5% 1/4W
R859	1-249-439-11	CARBON	68K 5% 1/4W
△ R870	1-215-892-11	METAL OXIDE	1K 5% 2W F
R944	1-249-417-11	CARBON	1K 5% 1/4W F
R1002	1-249-429-11	CARBON	10K 5% 1/4W
R1020	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1021	1-249-417-11	CARBON	1K 5% 1/4W F
R6100	1-249-429-11	CARBON	10K 5% 1/4W
R6101	1-247-807-31	CARBON	100 5% 1/4W
R6102	1-249-417-11	CARBON	1K 5% 1/4W F
R6103	1-249-433-11	CARBON	22K 5% 1/4W
R6105	1-249-431-11	CARBON	15K 5% 1/4W
R6106	1-249-424-11	CARBON	3.9K 5% 1/4W F
R6109	1-249-425-11	CARBON	4.7K 5% 1/4W F
R6111	1-247-903-00	CARBON	1M 5% 1/4W
R6112	1-249-425-11	CARBON	4.7K 5% 1/4W F
R6113	1-247-807-31	CARBON	100 5% 1/4W
R6115	1-249-441-11	CARBON	100K 5% 1/4W
R6116	1-249-433-11	CARBON	22K 5% 1/4W
R6117	1-249-433-11	CARBON	22K 5% 1/4W
R6118	1-249-441-11	CARBON	100K 5% 1/4W
R6119	1-249-441-11	CARBON	100K 5% 1/4W
R6120	1-249-441-11	CARBON	100K 5% 1/4W
R6124	1-249-417-11	CARBON	1K 5% 1/4W F
R6125	1-249-429-11	CARBON	10M 5% 1/4W
< RELAY >			
RY801	1-515-920-11	RELAY (24V)	
< TERMINAL >			
TB901	1-537-240-31	TERMINAL BOARD (CHECKER PIN)	

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	Ref. No.	Part No.	Description				Remarks
*	A-4403-207-A	MIC ECHO BOARD, COMPLETE							< RESISTOR >				
		*****					R6001	1-249-429-11	CARBON	10K	5%	1/4W	
		< CAPACITOR >					R6002	1-249-429-11	CARBON	10K	5%	1/4W	
C6001	1-162-306-11	CERAMIC	0.01uF	20%	16V		R6003	1-249-417-11	CARBON	1K	5%	1/4W	
C6002	1-162-306-11	CERAMIC	0.01uF	20%	16V		R6004	1-249-417-11	CARBON	1K	5%	1/4W	
C6003	1-124-257-00	ELECT	2.2uF	20%	50V		R6005	1-249-417-11	CARBON	1K	5%	1/4W	
C6004	1-124-257-00	ELECT	2.2uF	20%	50V		R6006	1-249-425-11	CARBON	4.7K	5%	1/4W	
C6005	1-162-215-31	CERAMIC	47PF	5%	50V		R6007	1-249-433-11	CARBON	22K	5%	1/4W	
							R6008	1-249-433-11	CARBON	22K	5%	1/4W	
C6006	1-162-290-31	CERAMIC	470PF	10%	50V		R6009	1-249-433-11	CARBON	22K	5%	1/4W	
C6008	1-126-160-11	ELECT	1uF	20%	50V		R6010	1-247-881-00	CARBON	120K	5%	1/4W	
C6009	1-162-294-31	CERAMIC	0.001uF	10%	50V								
C6010	1-136-495-11	FILM	0.068uF	5%	50V		R6011	1-249-437-11	CARBON	47K	5%	1/4W	
C6011	1-104-664-11	ELECT	47uF	20%	25V		R6012	1-249-433-11	CARBON	22K	5%	1/4W	
							R6013	1-249-433-11	CARBON	22K	5%	1/4W	
C6012	1-126-160-11	ELECT	1uF	20%	50V		R6014	1-249-433-11	CARBON	22K	5%	1/4W	
C6013	1-126-160-11	ELECT	1uF	20%	50V		R6015	1-249-417-11	CARBON	1K	5%	1/4W	
C6014	1-104-664-11	ELECT	47uF	20%	25V								
C6015	1-124-250-11	ELECT	0.15uF	20%	50V		R6016	1-247-843-11	CARBON	3.3K	5%	1/4W	
C6016	1-162-305-11	CERAMIC	0.0068uF	30%	16V		R6017	1-249-417-11	CARBON	1K	5%	1/4W	
							R6018	1-247-881-00	CARBON	120K	5%	1/4W	
C6017	1-136-495-11	FILM	0.068uF	5%	50V		R6019	1-247-807-31	CARBON	100	5%	1/4W	
C6018	1-162-305-11	CERAMIC	0.0068uF	30%	16V		R6030	1-247-895-00	CARBON	470K	5%	1/4W	
C6019	1-162-294-31	CERAMIC	0.001uF	10%	50V								
C6020	1-126-160-11	ELECT	1uF	20%	50V		R6201	1-249-419-11	CARBON	1.5K	5%	1/4W	
C6021	1-162-306-11	CERAMIC	0.01uF	20%	16V		R6202	1-249-418-11	CARBON	1.2K	5%	1/4W	
							R6251	1-249-419-11	CARBON	1.5K	5%	1/4W	
C6023	1-162-215-31	CERAMIC	47PF	5%	50V		R6252	1-249-418-11	CARBON	1.2K	5%	1/4W	
C6024	1-162-282-31	CERAMIC	100PF	10%	50V								
C6025	1-124-257-00	ELECT	2.2uF	20%	50V				< VARIABLE RESISTOR >				
C6026	1-124-261-00	ELECT	10uF	20%	50V								
C6027	1-124-261-00	ELECT	10uF	20%	50V		RV6001	1-225-511-11	RES,VAR,CARBON 50K/50K	(MIC LEVEL/ECHO VOL)			
C6028	1-162-306-11	CERAMIC	0.01uF	20%	16V								
C6030	1-124-465-00	ELECT	0.47uF	20%	50V		*****						
C6032	1-162-306-11	CERAMIC	0.01uF	20%	16V								
C6033	1-162-306-11	CERAMIC	0.01uF	20%	16V		*	A-4403-204-A	PANEL BOARD, COMPLETE				

		< DIODE >							VOLUME BOARD				

D6001	8-719-987-63	DIODE 1N4148M											
D6002	8-719-987-63	DIODE 1N4148M					*	4-932-810-11	CUSHION (FL)				
D6003	8-719-987-63	DIODE 1N4148M					*	4-986-870-01	HOLDER, FL TUBE				
		< TERMINAL >							< CAPACITOR >				
* G6001	1-537-738-21	TERMINAL, EARTH					C501	1-164-159-11	CERAMIC	0.1uF		50V	
		< IC >					C502	1-164-159-11	CERAMIC	0.1uF		50V	
							C503	1-162-203-31	CERAMIC	15PF	5%	50V	
IC6001	8-759-634-51	IC M5218AP					C504	1-162-205-31	CERAMIC	18PF	5%	50V	
IC6002	8-759-450-96	IC M65850P					C505	1-126-964-11	ELECT	10uF	20%	50V	
		< JACK >					C506	1-137-399-11	FILM	0.1uF	5%	50V	
							C507	1-124-248-00	ELECT	22uF	20%	35V	
J6001	1-770-226-11	JACK (LARGE TYPE) (MIX MIC1)					C508	1-162-306-11	CERAMIC	0.01uF	20%	16V	
J6002	1-750-733-11	JACK (LARGE TYPE) (MIX MIC2)					C509	1-126-964-11	ELECT	10uF	20%	50V	
J6003	1-770-226-11	JACK (LARGE TYPE) (PHONES)					C510	1-162-306-11	CERAMIC	0.01uF	20%	16V	
							C511	1-124-584-00	ELECT	100uF	20%	10V	
							C512	1-126-964-11	ELECT	10uF	20%	50V	
							C514	1-126-964-11	ELECT	10uF	20%	50V	
							C515	1-162-306-11	CERAMIC	0.01uF	20%	16V	
							C516	1-126-964-11	ELECT	10uF	20%	50V	

PANEL

VOLUME

Ref. No.	Part No.	Description	Remarks
C517	1-137-374-11	FILM 0.047uF 5%	50V
C518	1-162-306-11	CERAMIC 0.01uF 20%	16V
C519	1-124-464-11	ELECT 0.22uF 20%	50V
C520	1-137-371-11	FILM 0.015uF 5%	50V
C521	1-124-463-00	ELECT 0.1uF 20%	50V
C522	1-164-159-11	CERAMIC 0.1uF	50V
C523	1-162-302-11	CERAMIC 0.0022uF 30%	16V
C524	1-162-301-11	CERAMIC 0.0015uF 30%	16V
C525	1-162-288-31	CERAMIC 330PF 10%	50V
C526	1-164-159-11	CERAMIC 0.1uF	50V
C527	1-164-159-11	CERAMIC 0.1uF	50V
C528	1-104-905-11	CAPACITOR 0.22F	5.5V
C544	1-162-306-11	CERAMIC 0.01uF 20%	16V
C545	1-162-306-11	CERAMIC 0.01uF 20%	16V
C546	1-162-306-11	CERAMIC 0.01uF 20%	16V
C549	1-162-284-31	CERAMIC 150PF 10%	50V
C550	1-162-286-31	CERAMIC 220PF 10%	50V
< CONNECTOR >			
CN501	1-774-342-11	PLUG, CONNECTOR (PC BOARD) 14P	
CN502	1-774-342-11	PLUG, CONNECTOR (PC BOARD) 14P	
< DIODE >			
D505	8-719-032-86	DIODE SEL5420E (KEY CONTROL #)	
D506	8-719-046-36	DIODE SEL5921A-TH15 (KEY CONTROL b)	
D511	8-719-987-63	DIODE 1N4148M	
D518	8-719-046-39	DIODE SEL5821A-TH15 (VCD)	
D519	8-719-046-39	DIODE SEL5821A-TH15 (PBC)	
D520	8-719-046-39	DIODE SEL5821A-TH15 (AUTO PBC)	
D521	8-719-046-80	DIODE SML19416W-TP4 (MOVIE)	
D522	8-719-046-39	DIODE SEL5821A-TH15 (DNR)	
D523	8-719-046-80	DIODE SML19416W-TP4 (P FILE)	
D524	8-719-046-80	DIODE SML19416W-TP4 (P FILE)	
D525	8-719-046-80	DIODE SML19416W-TP4 (GAME)	
D526	8-719-046-80	DIODE SML19416W-TP4 (GAME)	
D527	8-719-046-80	DIODE SML19416W-TP4 (MOVIE)	
D528	8-719-046-80	DIODE SML19416W-TP4 (MUSIC)	
D529	8-719-046-39	DIODE SEL5821A-TH15 (CD)	
D530	8-719-046-39	DIODE SEL5821A-TH15 (TUNER)	
D531	8-719-046-39	DIODE SEL5821A-TH15 (TIMER)	
D532	8-719-046-80	DIODE SML19416W-TP4 (MUSIC)	
D533	8-719-046-39	DIODE SEL5821A-TH15 (EFFECT)	
D534	8-719-046-44	DIODE SEL5221S (EFFECT ON/OFF)	
D536	8-719-032-86	DIODE SEL5420E (TUNER BAND)	
D537	8-719-032-86	DIODE SEL5420E (TUNER BAND)	
D538	8-719-046-44	DIODE SEL5221S (GROOVE)	
D539	8-719-046-44	DIODE SEL5221S (GROOVE)	
D540	8-719-046-36	DIODE SEL5921A-TH15 (DBFB)	
D541	8-719-046-36	DIODE SEL5921A-TH15 (DBFB)	
D542	8-719-064-63	DIODE SELU5823A-TP15	
D543	8-719-064-63	DIODE SELU5823A-TP15	
D575	8-719-987-63	DIODE 1N4148M	
D576	8-719-987-63	DIODE 1N4148M	
D579	8-719-024-99	DIODE 11ES2-NTA2B	
D580	8-719-987-63	DIODE 1N4148M	
D581	8-719-987-63	DIODE 1N4148M	
D582	8-719-014-73	DIODE UZP-5.6BC-TP	
D583	8-719-024-99	DIODE 11ES2-NTA2B	

Ref. No.	Part No.	Description	Remarks
D585	8-719-987-63	DIODE 1N4148M	
D586	8-719-987-63	DIODE 1N4148M	
D587	8-719-987-63	DIODE 1N4148M	
D588	8-719-987-63	DIODE 1N4148M	
D589	8-719-987-63	DIODE 1N4148M	
< FILTER >			
FL501	1-517-618-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC501	8-759-483-31	IC TMP87CM75F-6623	
IC502	8-759-332-18	IC GP1U27XB	
IC503	8-759-165-82	IC PST600E-T	
IC504	8-759-372-64	IC M66313FP-200C	
< COIL >			
L502	1-408-074-00	INDUCTOR 56uH	
< TRANSISTOR >			
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q502	8-729-422-57	TRANSISTOR UN4111	
Q503	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q504	8-729-422-57	TRANSISTOR UN4111	
Q505	8-729-422-57	TRANSISTOR UN4111	
Q506	8-729-422-57	TRANSISTOR UN4111	
Q507	8-729-422-57	TRANSISTOR UN4111	
Q508	8-729-422-57	TRANSISTOR UN4111	
Q509	8-729-422-57	TRANSISTOR UN4111	
Q510	8-729-422-57	TRANSISTOR UN4111	
< RESISTOR >			
R501	1-249-407-11	CARBON 150 5%	1/4W F
R502	1-249-409-11	CARBON 220 5%	1/4W F
R503	1-249-411-11	CARBON 330 5%	1/4W
R504	1-249-413-11	CARBON 470 5%	1/4W F
R505	1-249-415-11	CARBON 680 5%	1/4W F
R506	1-249-417-11	CARBON 1K 5%	1/4W F
R507	1-249-407-11	CARBON 150 5%	1/4W F
R508	1-249-411-11	CARBON 330 5%	1/4W
R511	1-249-407-11	CARBON 150 5%	1/4W F
R512	1-249-409-11	CARBON 220 5%	1/4W F
R513	1-249-411-11	CARBON 330 5%	1/4W
R514	1-249-413-11	CARBON 470 5%	1/4W F
R515	1-249-415-11	CARBON 680 5%	1/4W F
R516	1-249-417-11	CARBON 1K 5%	1/4W F
R517	1-249-419-11	CARBON 1.5K 5%	1/4W F
R518	1-249-421-11	CARBON 2.2K 5%	1/4W F
R519	1-247-843-11	CARBON 3.3K 5%	1/4W
R520	1-249-427-11	CARBON 6.8K 5%	1/4W F
R521	1-249-431-11	CARBON 15K 5%	1/4W
R522	1-249-437-11	CARBON 47K 5%	1/4W
R523	1-249-413-11	CARBON 470 5%	1/4W F
R524	1-249-415-11	CARBON 680 5%	1/4W F
R525	1-249-417-11	CARBON 1K 5%	1/4W F
R526	1-249-419-11	CARBON 1.5K 5%	1/4W F
R527	1-249-421-11	CARBON 2.2K 5%	1/4W F
R528	1-247-843-11	CARBON 3.3K 5%	1/4W
R529	1-249-427-11	CARBON 6.8K 5%	1/4W F
R530	1-249-431-11	CARBON 15K 5%	1/4W
R531	1-249-437-11	CARBON 47K 5%	1/4W
R532	1-249-409-11	CARBON 220 5%	1/4W F

PANEL

VOLUME

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R534	1-249-407-11	CARBON	150	5%	1/4W F	R623	1-249-429-11	CARBON	10K	5%	1/4W
R535	1-249-407-11	CARBON	150	5%	1/4W F	R624	1-249-429-11	CARBON	10K	5%	1/4W
R542	1-249-407-11	CARBON	150	5%	1/4W F	R630	1-249-435-11	CARBON	33K	5%	1/4W
R543	1-249-407-11	CARBON	150	5%	1/4W F	R631	1-249-435-11	CARBON	33K	5%	1/4W
R544	1-249-407-11	CARBON	150	5%	1/4W F	R632	1-249-437-11	CARBON	47K	5%	1/4W
R545	1-249-407-11	CARBON	150	5%	1/4W F	R633	1-247-903-00	CARBON	1M	5%	1/4W
R550	1-249-407-11	CARBON	150	5%	1/4W F	R634	1-249-437-11	CARBON	47K	5%	1/4W
R551	1-249-407-11	CARBON	150	5%	1/4W F	R635	1-247-903-00	CARBON	1M	5%	1/4W
R552	1-249-407-11	CARBON	150	5%	1/4W F	R636	1-249-435-11	CARBON	33K	5%	1/4W
R553	1-249-407-11	CARBON	150	5%	1/4W F	R637	1-249-429-11	CARBON	10K	5%	1/4W
R554	1-249-413-11	CARBON	470	5%	1/4W F	R638	1-249-437-11	CARBON	47K	5%	1/4W
R555	1-249-401-11	CARBON	47	5%	1/4W F	R639	1-249-437-11	CARBON	47K	5%	1/4W
R556	1-247-807-31	CARBON	100	5%	1/4W	R640	1-247-903-00	CARBON	1M	5%	1/4W
R557	1-249-399-11	CARBON	33	5%	1/4W F	R641	1-247-903-00	CARBON	1M	5%	1/4W
R559	1-247-807-31	CARBON	100	5%	1/4W	R642	1-249-431-11	CARBON	15K	5%	1/4W
R560	1-247-807-31	CARBON	100	5%	1/4W	R643	1-249-427-11	CARBON	6.8K	5%	1/4W F
R561	1-247-807-31	CARBON	100	5%	1/4W	R662	1-247-903-00	CARBON	1M	5%	1/4W
R563	1-247-807-31	CARBON	100	5%	1/4W	R663	1-247-903-00	CARBON	1M	5%	1/4W
R564	1-247-807-31	CARBON	100	5%	1/4W	R664	1-247-903-00	CARBON	1M	5%	1/4W
R565	1-247-807-31	CARBON	100	5%	1/4W	R665	1-247-903-00	CARBON	1M	5%	1/4W
R566	1-247-807-31	CARBON	100	5%	1/4W	R666	1-249-417-11	CARBON	1K	5%	1/4W F
R567	1-247-807-31	CARBON	100	5%	1/4W	< SWITCH >					
R568	1-247-807-31	CARBON	100	5%	1/4W	S501	1-762-751-11	SWITCH, TACTILE (MOVIE)			
R569	1-247-807-31	CARBON	100	5%	1/4W	S502	1-762-751-11	SWITCH, TACTILE (MUSIC)			
R570	1-247-807-31	CARBON	100	5%	1/4W	S503	1-762-751-11	SWITCH, TACTILE (EFFECT ON/OFF)			
R571	1-247-807-31	CARBON	100	5%	1/4W	S504	1-762-751-11	SWITCH, TACTILE (LOW FREQ)			
R572	1-247-807-31	CARBON	100	5%	1/4W	S505	1-762-751-11	SWITCH, TACTILE (MEMORY)			
R573	1-247-807-31	CARBON	100	5%	1/4W	S506	1-762-751-11	SWITCH, TACTILE (TUNING MODE)			
R574	1-247-807-31	CARBON	100	5%	1/4W	S507	1-762-751-11	SWITCH, TACTILE (FLASH)			
R575	1-247-807-31	CARBON	100	5%	1/4W	S508	1-762-751-11	SWITCH, TACTILE (POWER)			
R576	1-247-807-31	CARBON	100	5%	1/4W	S512	1-762-751-11	SWITCH, TACTILE (GAME)			
R577	1-247-807-31	CARBON	100	5%	1/4W	S513	1-762-751-11	SWITCH, TACTILE (P FILE)			
R580	1-249-427-11	CARBON	6.8K	5%	1/4W F	S514	1-762-751-11	SWITCH, TACTILE (MEMO)			
R581	1-249-427-11	CARBON	6.8K	5%	1/4W F	S515	1-762-751-11	SWITCH, TACTILE (HIGH FREQ)			
R583	1-249-403-11	CARBON	68	5%	1/4W F	S516	1-762-751-11	SWITCH, TACTILE (REPEAT)			
R584	1-249-403-11	CARBON	68	5%	1/4W F	S517	1-762-751-11	SWITCH, TACTILE (1/ALL DISCS)			
R585	1-249-403-11	CARBON	68	5%	1/4W F	S518	1-762-751-11	SWITCH, TACTILE (PLAY MODE)			
R586	1-249-403-11	CARBON	68	5%	1/4W F	S519	1-762-751-11	SWITCH, TACTILE (EDIT)			
R587	1-249-403-11	CARBON	68	5%	1/4W F	S520	1-762-751-11	SWITCH, TACTILE (DBFB)			
R588	1-249-403-11	CARBON	68	5%	1/4W F	S521	1-762-751-11	SWITCH, TACTILE (GROOVE)			
R589	1-249-403-11	CARBON	68	5%	1/4W F	S522	1-762-751-11	SWITCH, TACTILE (FUNCTION)			
R601	1-249-433-11	CARBON	22K	5%	1/4W	S523	1-762-751-11	SWITCH, TACTILE (MONO/ST)			
R602	1-249-437-11	CARBON	47K	5%	1/4W	S524	1-762-751-11	SWITCH, TACTILE (TUNER BAND)			
R603	1-249-437-11	CARBON	47K	5%	1/4W	S525	1-762-751-11	SWITCH, TACTILE (TIMER SELECT)			
R604	1-249-429-11	CARBON	10K	5%	1/4W	S526	1-762-751-11	SWITCH, TACTILE (CLOCK TIMER SET)			
R605	1-249-441-11	CARBON	100K	5%	1/4W	S529	1-762-751-11	SWITCH, TACTILE (KEY CONTROL #)			
R606	1-249-425-11	CARBON	4.7K	5%	1/4W F	S530	1-762-751-11	SWITCH, TACTILE (KEY CONTROL b)			
R610	1-249-429-11	CARBON	10K	5%	1/4W	S531	1-762-751-11	SWITCH, TACTILE (KARAOKE PON/MPX)			
R611	1-249-429-11	CARBON	10K	5%	1/4W	S532	1-762-751-11	SWITCH, TACTILE (SURROUND)			
R613	1-249-429-11	CARBON	10K	5%	1/4W	S533	1-762-751-11	SWITCH, TACTILE (LOOP)			
R614	1-249-409-11	CARBON	220	5%	1/4W F	S535	1-467-869-11	ENCODER, ROTARY (VOLUME)			
R615	1-249-409-11	CARBON	220	5%	1/4W F	S537	1-762-751-11	SWITCH, TACTILE (WAVE)			
R616	1-247-843-11	CARBON	3.3K	5%	1/4W	S538	1-762-751-11	SWITCH, TACTILE (DISPLAY/DEMO)			
R617	1-247-843-11	CARBON	3.3K	5%	1/4W	< VIBRATOR >					
R618	1-247-843-11	CARBON	3.3K	5%	1/4W	< VIBRATOR >					
R619	1-249-429-11	CARBON	10K	5%	1/4W	X501	1-579-125-11	VIBRATOR, CERAMIC 5MHz			
R620	1-249-429-11	CARBON	10K	5%	1/4W	X502	1-567-098-41	VIBRATOR, CRYSTAL 32KHz			
R621	1-249-429-11	CARBON	10K	5%	1/4W	< VIBRATOR >					
R622	1-249-429-11	CARBON	10K	5%	1/4W	< VIBRATOR >					

PRI

SEC

Ref. No.	Part No.	Description	Remarks
*	1-666-065-11	PRI BOARD *****	
	1-533-293-11	FUSE HOLDER < CONNECTOR >	
	CN851 1-564-321-00	PIN, CONNECTOR 2P < FUSE >	
△ F851	1-532-465-51	FUSE, TIME LAG 3.15A 250V	
△ F852	1-532-506-51	FUSE, TIME LAG 6.3A 250V < SWITCH >	
△ VS851	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE	

*	1-666-059-11	SEC BOARD *****	
	1-533-293-11	FUSE HOLDER < CONNECTOR >	
	* CN852 1-564-527-11	PLUG, CONNECTOR 12P < FUSE >	
△ F857	1-532-506-51	FUSE, TIME LAG 6.3A 250V	
△ F858	1-532-506-51	FUSE, TIME LAG 6.3A 250V < RESISTOR >	
△ R853	1-219-123-11	FUSIBLE 0.47 5% 1/4W F	
△ R854	1-219-123-11	FUSIBLE 0.47 5% 1/4W F	
△ R855	1-219-121-11	FUSIBLE 0.22 5% 1/4W F	
△ R856	1-219-121-11	FUSIBLE 0.22 5% 1/4W F	

Ref. No.	Part No.	Description	Remarks

		MISCELLANEOUS *****	
6	1-233-546-21	ENCAPSULATED COMPONENT	
7	1-666-067-11	DUMMY BOARD	
△ 12	1-777-071-21	CORD, POWER (MY, SP, HK)	
△ 12	1-782-315-11	CORD, POWER (1A)	
△ 12	1-782-464-21	CORD, POWER (CH)	
△ 13	1-569-007-11	ADAPTOR, CONVERSION 2P (1A)	
△ 13	1-569-008-21	ADAPTOR, CONVERSION 2P (MY, SP)	
△ 13	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
△ F851	1-532-465-51	FUSE, TIME LAG 3.15A 250V	
△ F852	1-532-506-51	FUSE, TIME LAG 6.3A 250V	
△ F857	1-532-506-51	FUSE, TIME LAG 6.3A 250V	
△ F858	1-532-506-51	FUSE, TIME LAG 6.3A 250V	
△ T901	1-431-365-11	TRANSFORMER, POWER	

		***** HARDWARE LIST *****	
#1	7-685-872-09	SCREW +BVTT 3X8 (S)	
#2	7-685-881-09	SCREW +BVTT 4X8 (S)	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#4	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#5	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	

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