

ST-S9

SERVICE MANUAL

Ver 1.0 2001.09

*AEP Model
UK Model
E Model
Australian Model*



ST-S9 is the tuner section in MHC-S9D.

SPECIFICATIONS

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Pan American model:	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)
European and Middle Eastern models:	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz
Dimensions (w/h/d)	Approx. 280 x 108 x 340 mm
Mass	Approx. 2.1 kg

Design and specifications are subject to change without notice.

**FM STEREO, FM/AM
SUPERHETERODYNE TUNER**

SECTION 1
SERVICING NOTES

TABLE OF CONTENTS

1. SERVICING NOTES 2

2. GENERAL

Location of Controls 3

Setting the Time 4

3. DISASSEMBLY

3-1. Disassembly Flow 5

3-2. Case 6

3-3. Front Panel Section 6

3-4. PANEL Board, SIRCS Board 7

3-5. Tuner Pack (FM/AM) 7

3-6. MAIN Board 8

3-7. DSP Board 8

4. TEST MODE 9

5. DIAGRAMS

5-1. Note for Printed Wiring Boards and Schematic Diagrams 10

5-2. Schematic Diagram – MAIN Board (1/2) – 12

5-3. Schematic Diagram – MAIN Board (2/2) – 13

5-4. Printed Wiring Board – MAIN Board – 14

5-5. Printed Wiring Board – DSP Board – 15

5-6. Schematic Diagram – DSP Board (1/2) – 16

5-7. Schematic Diagram – DSP Board (2/2) – 17

5-8. Printed Wiring Boards – PANEL Section – 18

5-9. Schematic Diagram – PANEL Section – 19

5-10. IC Pin Function Description 20

6. EXPLODED VIEWS

6-1. Case, Front Panel Section 26

6-2. Chassis Section 27

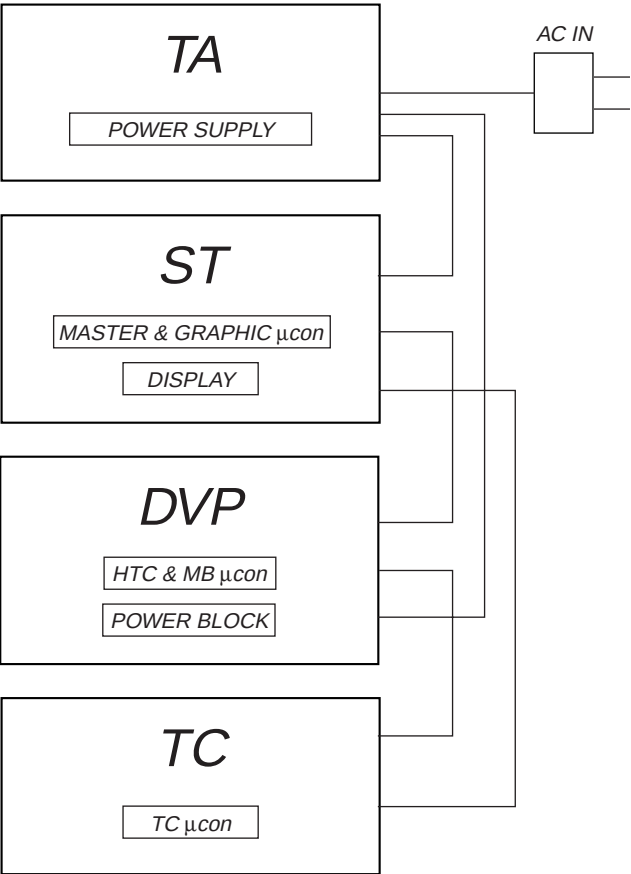
7. ELECTRICAL PARTS LIST 28

This set is a component of the MHC-S9D.
The MHC-S9D system configuration is as shown below, and therefore it does not operate normally unless all four components are connected.

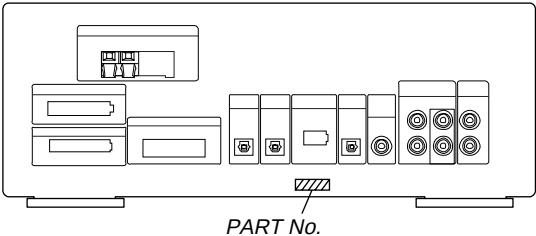
In performing the repair, connect all components with the system cables.

Note: The precaution to the users is described on the label stuck on the back panel (DVD/video CD/CD player) and in the trouble-shooting section in the Operation Manual.

System Configuration:



• MODEL IDENTIFICATION
– Rear Panel –



MODEL	PART No.
AEP and UK models	4-232-349-0□
Australian model	4-232-349-1□
Saudi Arabia model	4-232-349-2□
Singapore and E models	4-232-349-3□
Mexican model	4-232-349-4□
Thai model	4-232-349-5□
Korean model	4-232-349-6□

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.

SAFETY-RELATED COMPONENT WARNING!!

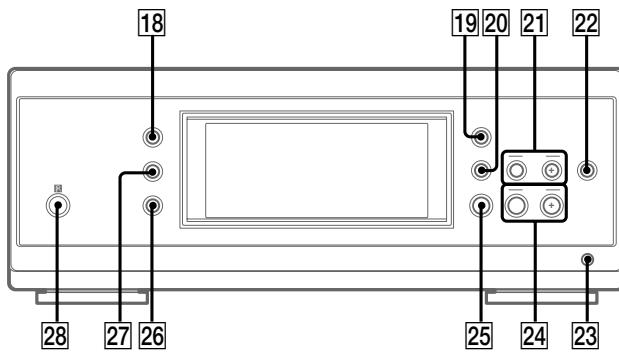
COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 2 GENERAL

This section is extracted from instruction manual.

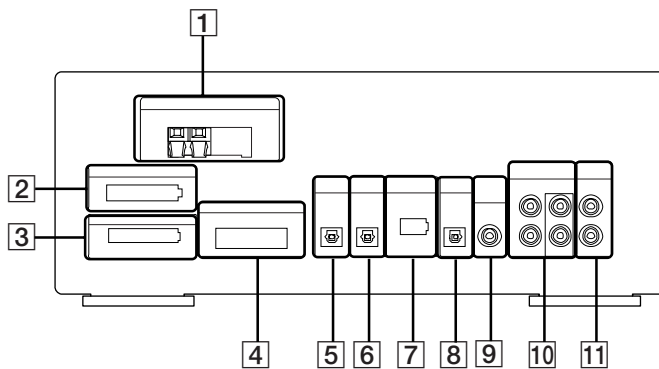
LOCATION OF CONTROLS

– Front Panel –



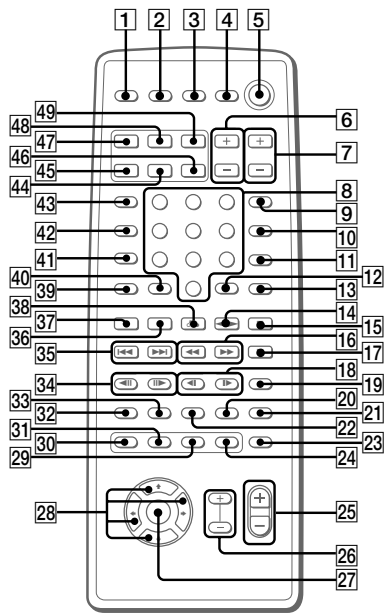
- CLOCK/TIMER **27** (17, 47, 56)
- DISPLAY **18** (17, 31, 32, 43, 54, 63)
- ENTER **22** (42, 43)
- IR receptor **28**
- PRESET /+ **24** (42, 43)
- PTY (European model only) **23** (43)
- STEREO/MONO **19** (43, 63)
- TIMER SELECT **26** (47, 56)
- TUNER/BAND **25** (42)
- TUNER MEMORY **20** (42)
- TUNING /+ **21** (42)

– Rear Panel –



- 1** ANTENNA terminal
- 2** SYSTEM CONTROL 1 connector (TO TA-S9D)
- 3** SYSTEM CONTROL 2 connector (TO TA-S9D)
- 4** SYSTEM CONTROL 3 connector (FROM DVP-S9)
- 5** OPTICAL IN terminal
- 6** OPTICAL IN terminal (FROM DVP-S9)
- 7** SYSTEM CONTROL 4 connector (TO TC-S9)
- 8** OPTICAL OUT terminal
- 9** SUB WOOFER OUT jack
- 10** MD IN/OUT jack
- 11** VIDEO (AUDIO) IN jack

Remote control



ANGLE **32** (37)
AUDIO **22** (34)
CLEAR **12** (22, 29, 30, 36)
CLOCK/TIMER SELECT **3** (47, 56)
CLOCK/TIMER SET **2** (17, 47, 56)
DBFB **41** (48)
D.SKIP **9** (26)
DIGITAL **44** (57)
DISPLAY **47** (17, 31, 32, 43, 54)
DVD DISPLAY **23** (18, 19, 30, 32, 34, 36, 40)
DVD MENU **21** (27)
DVD SET UP **19** (18, 19, 24, 39)
ENTER **27**
EQ **31** (52)
EQ ON/OFF **29** (53)
FILE SELECT +/- **26** (48, 49, 53)
FUNCTION **43** (18, 25, 27, 28, 36, 45, 46, 55, 57)
GROOVE **42** (48)
KARAOKE PON (Except for North American and European models) **39** (54)

MD **46** (57)
Numeric buttons **8** (28, 30)
PLAY MODE **11** (25, 28, 29, 46)
REPEAT **10** (30)
RETURN **13** (27, 39, 40)
SELECT DVD **36** (20, 25, 27, 29, 30)
SET UP **24** (14, 16, 51, 53, 54)
SLEEP **1** (55)
SLOW **18** (26)
SPECTRUM ANALYZER **48** (54)
STEP **34** (26)
SUBTITLE **33** (37)
SUR **30** (51)
TAPE A **38** (44)
TAPE B **14** (44, 45)
TITLE **20** (27)
TUNER/BAND **37** (42)
TV I/⏻ **4** (13)
TV CH +/- **7** (13)
TV/VIDEO **49** (13)
TV VOL +/- **6** (13)
VIDEO **45** (57)
VOL +/- **25**

BUTTON DESCRIPTIONS	
I/⏻ (power)	5
⏸ (pause)	17
■ (stop)	15
◀◀/▶▶ (rewind/fast forward), TUNING +/-	16
◀◀/▶▶ (go back/go forward), PRESET +/-, PREV/NEXT	35
↑/↓/←/→	28
>10	40

Setting the time

- 1 Turn on the system.
- 2 Press **CLOCK/TIMER** (or **CLOCK/TIMER SET** on the remote).
When you set the time for the first time, proceed to step 5.
- 3 Press **↑** or **↓** repeatedly to select “**CLOCK SET**”.
- 4 Press **ENTER** (A/V amplifier or remote).
- 5 Press **↑** or **↓** repeatedly to set the hour.
- 6 Press **ENTER** (A/V amplifier or remote).
- 7 Press **↑** or **↓** repeatedly to set the minutes.
- 8 Press **ENTER** (A/V amplifier or remote).

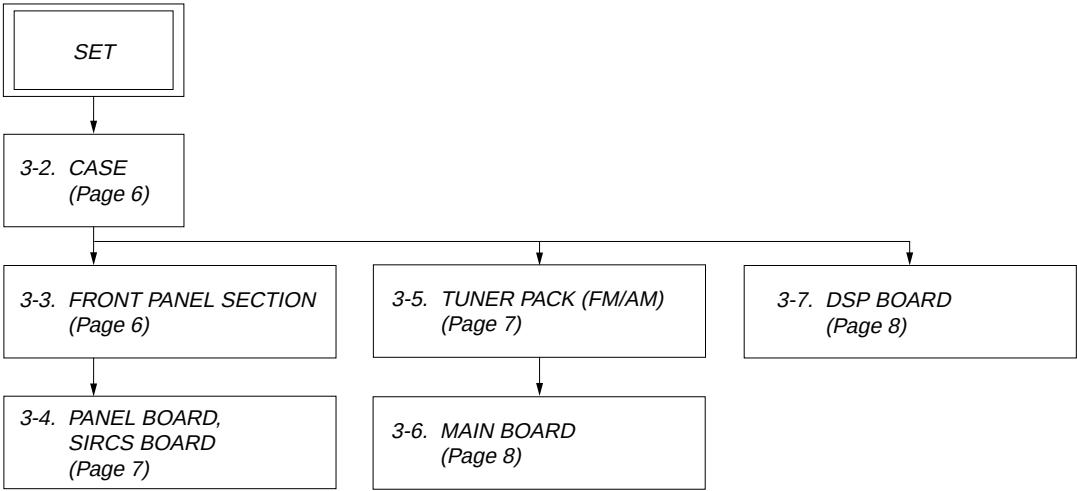
Tip
If you have made a mistake or want to change the time, start over from step 2.

Note
The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

SECTION 3
DISASSEMBLY

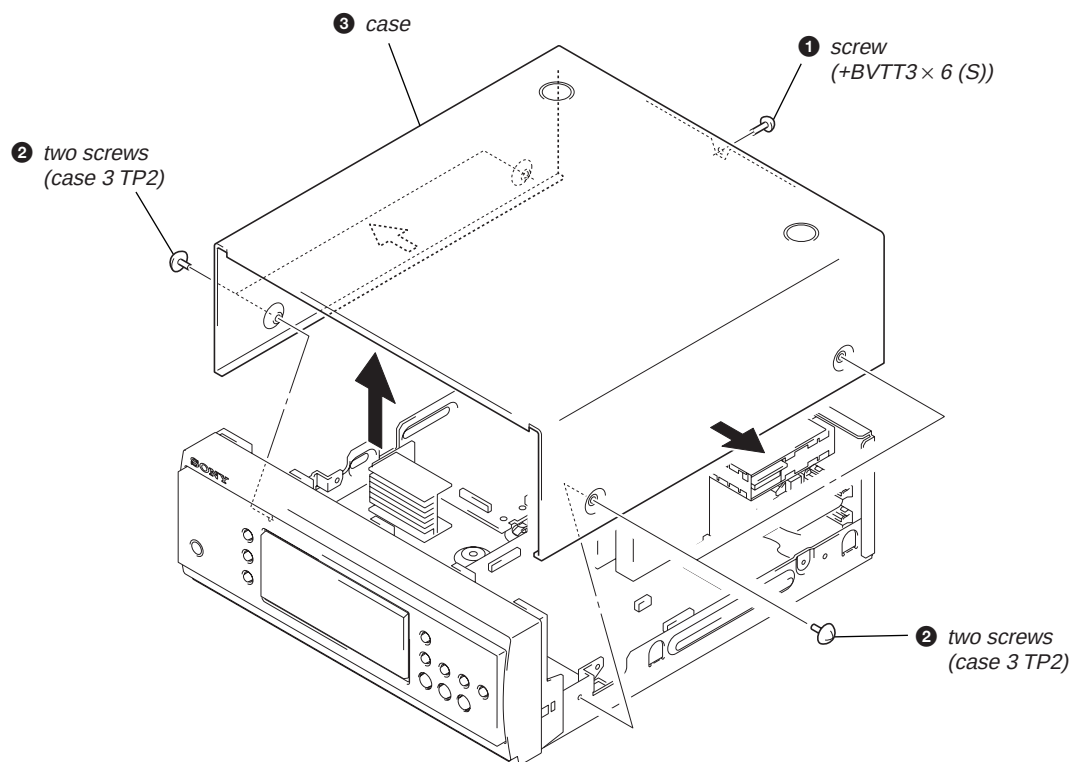
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

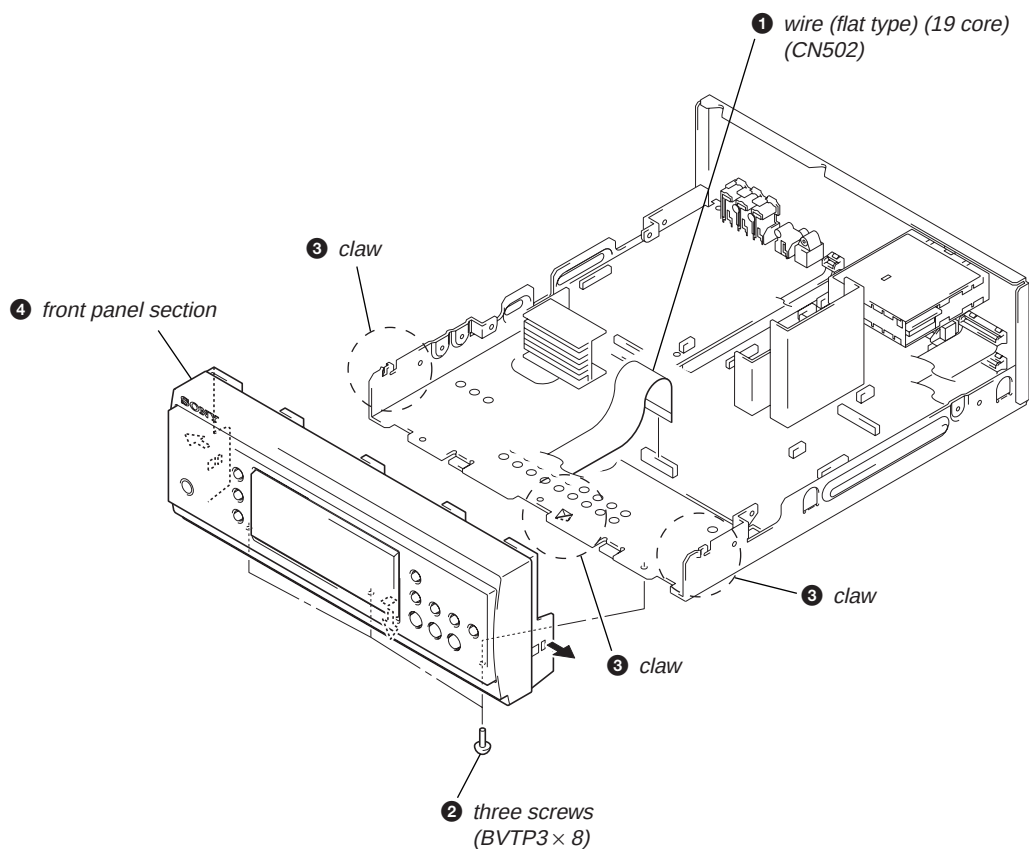


Note: Follow the disassembly procedure in the numerical order given.

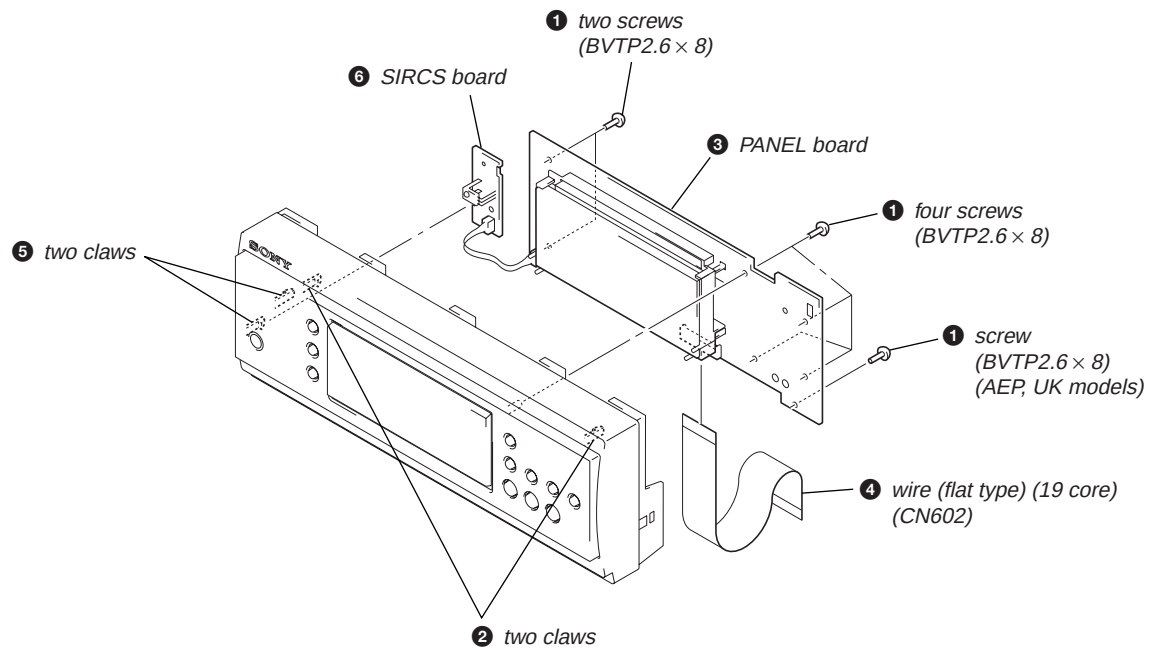
3-2. CASE



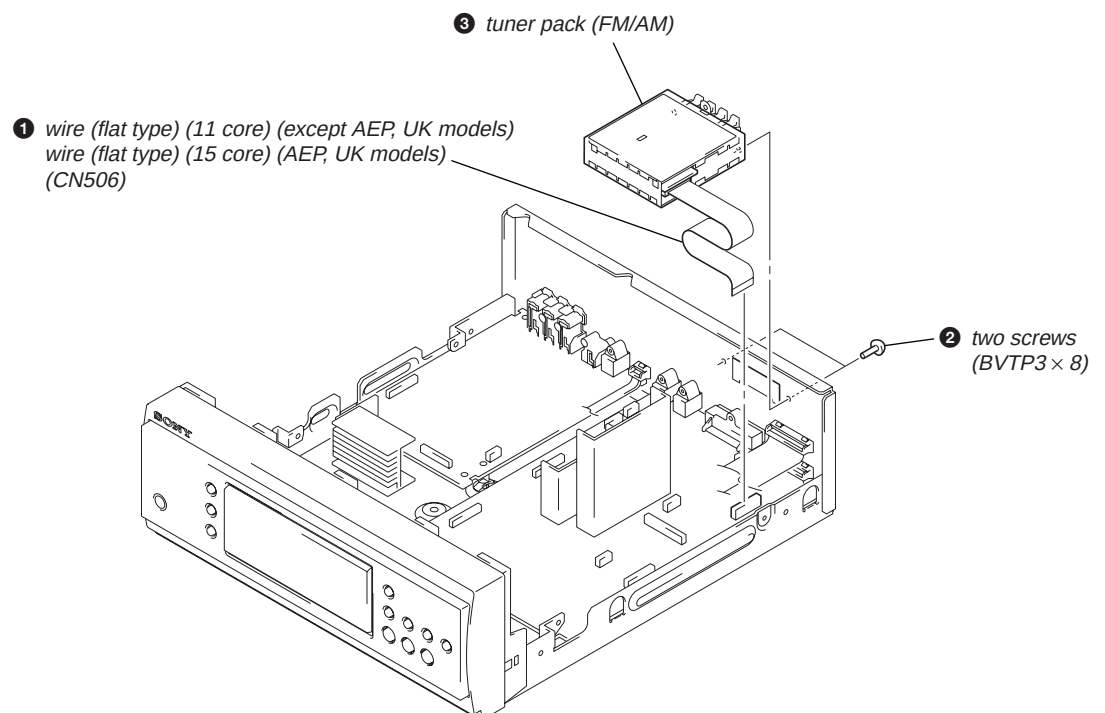
3-3. FRONT PANEL SECTION



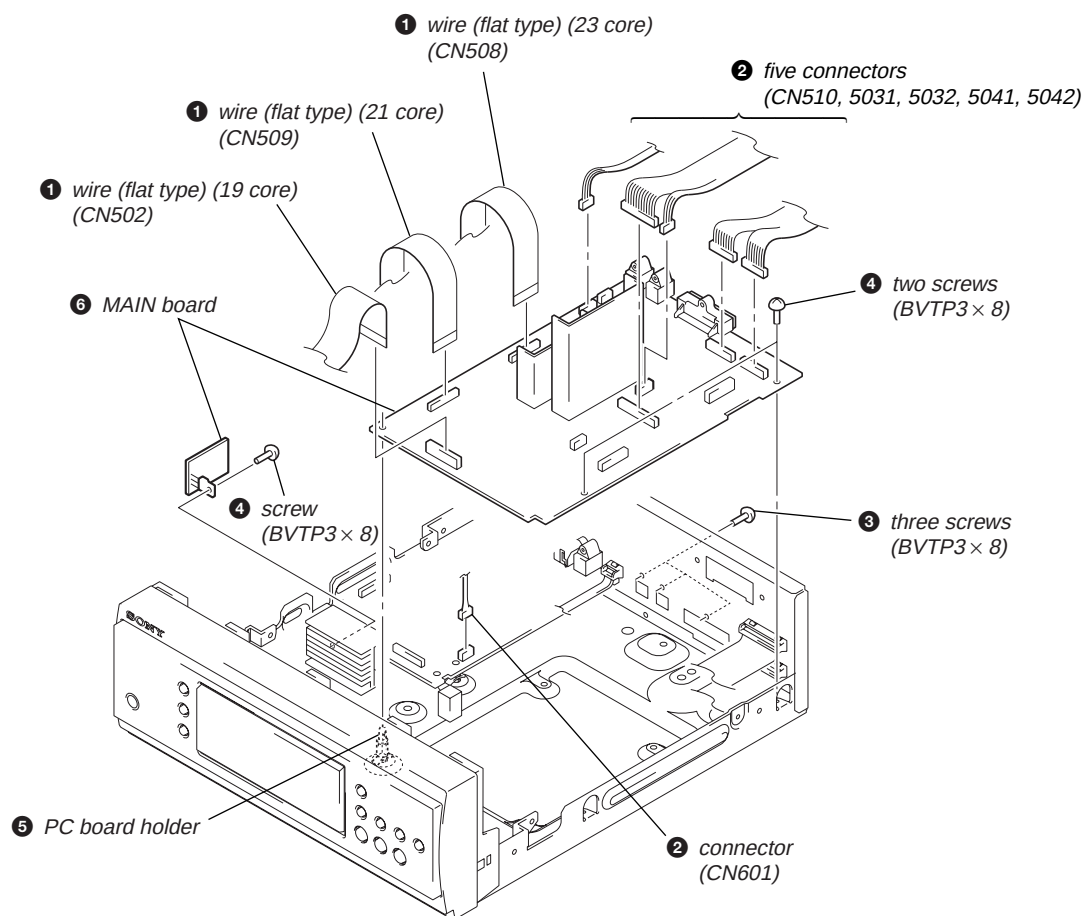
3-4. PANEL BOARD, SIRCS BOARD



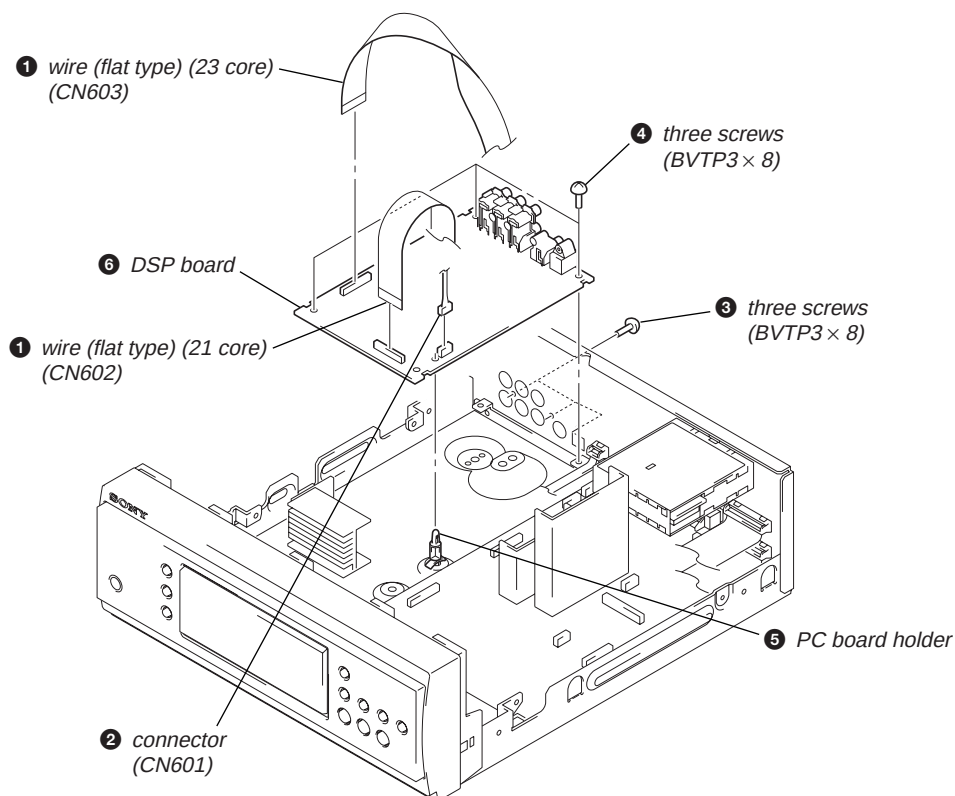
3-5. TUNER PACK (FM/AM)



3-6. MAIN BOARD



3-7. DSP BOARD



SECTION 4

TEST MODE

Note: Use following buttons in the test mode.

no mark : Button of tuner unit (ST-S9)

*1 : Button of amplifier unit (TA-S9D)

*2 : Button of DVD/video CD/CD unit (DVP-S9)

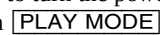
[MC Cold Reset]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure 1:

- Press the  *1 button to turn the power ON.
- While pressing the  *1 button, press the  button.
- The set is reset, and becomes standby state.

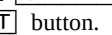
Procedure 2:

- Press the  *1 button to turn the power ON.
- While pressing the both  *2 and  *2 buttons, press the  *2 button.
- The set is reset, and becomes standby state.

[MC Hot Reset]

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

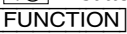
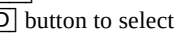
Procedure:

- Press the  *1 button to turn the power ON.
- While pressing the both  and  *1 buttons, press the  button.
- The set is reset, and becomes standby state.

[Change-over the AM Tuning Interval] (EXCEPT AEP, UK and Saudi Arabia models)

- The AM tuning interval can be changed over 9 kHz or 10 kHz.

Procedure:

- Press the  *1 button to turn the power ON.
- Turn the  *1 knob to select "TUNER", and press the  button to select the BAND "AM".
- Press the  *1 button to turn the power OFF.
- While pressing the  button, press the  *1 button, and the display on the fluorescent indicator tube changes to "AM 9 K STEP" or "AM 10 K STEP", and thus the tuning interval is changed over.

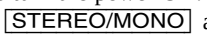
[Change-over of VACS ON/OFF]

- Press the  *1 button to turn the power ON.
- While pressing the both  and  *1 buttons, press the  button, and VACS ON/OFF is change over.

[GC Test Mode]

Enter the GC Test Mode

Procedure 1:

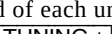
- Press the  *1 button to turn the power ON.
- While pressing the both  and  *1 buttons, press the  button.
- LEDs and fluorescent indicator tube are all turned on of all units.

Procedure 2:

- Press the  *1 button to turn the power ON.
- While pressing the both  *2 and  *2 buttons, press the  (DISC 1) *2 button.
- LEDs and fluorescent indicator tube are all turned on of all units.

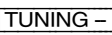
Version Display Mode

Procedure:

- Enter the GC test mode.
- Each time the  or  *2 button is pressed, microcomputer or mechanism deck version is displayed of each unit.
- Press the  or  *2 button to detail is displayed the version.

Key Check Mode

Procedure:

- Enter the GC test mode.
- Press the  or  *2 button to set the key check mode.
- In the key check the mode, the fluorescent indicator tube displays "K 0 J 0 V 0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.

VACS Level Display Mode

Procedure:

- Enter the GC test mode.
- Press the  or  *2 button to display VACS level on the fluorescent indicator tube.

Segment Check Mode

Procedure:

- Enter the GC test mode.
- Press the  or  *2 button to set the segment check mode.
- In the segment check the mode. Each  or  *2 button is pressed, the fluorescent indicator tube displays is switching variously.

Releasing the GC Test Mode

- To release from this mode, press three buttons in the same manner as entering this mode or disconnect the power cord.

SECTION 5 DIAGRAMS

5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

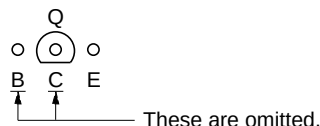
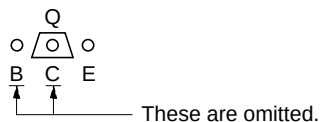
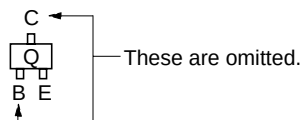
Note on Printed Wiring Board:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.
(Conductor Side)
Parts face side: Parts on the parts face side seen from the parts face are indicated.
(Component Side)

- Indication of transistor.



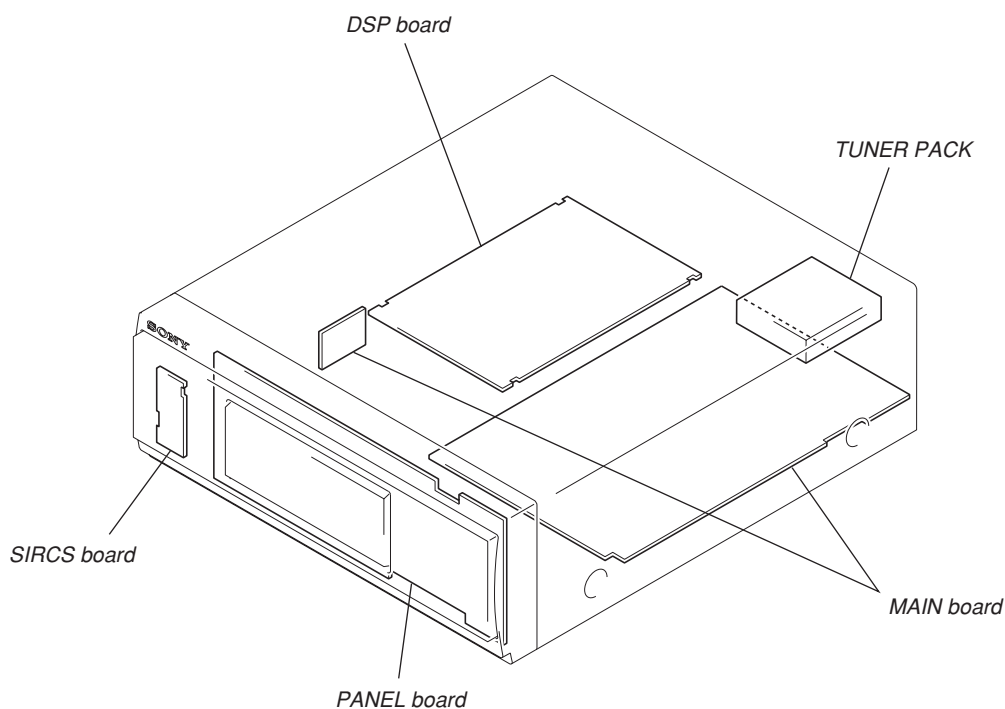
Note on Schematic Diagram:

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

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

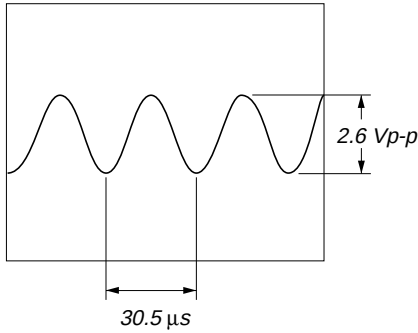
- : B+ Line.
- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)
() : DVD/CD PLAY
<< >> : AC OFF
* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 : TUNER (FM/AM)
 : TAPE PLAY
 : RECORD
 : DIGITAL INPUT
 : DVD/CD PLAY
 : MIC INPUT
- Abbreviation
AUS : Australian model
EA : Saudi Arabia model
KR : Korean model
MX : Mexican model
SP : Singapore model
TH : Thai model

• Circuit Boards Location

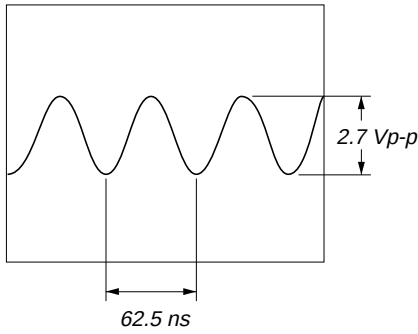


• Waveforms
– MAIN Board –

1 IC501 11 (XCOUT)

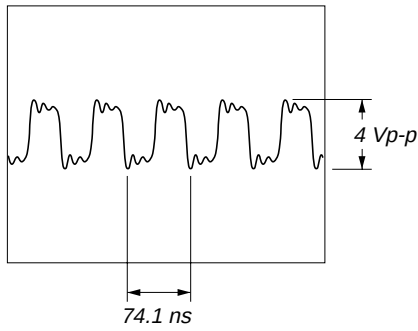


2 IC501 13 (XOUT)

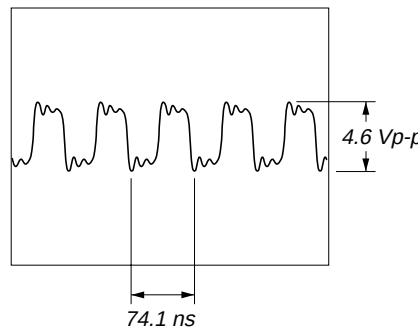


– DSP Board –

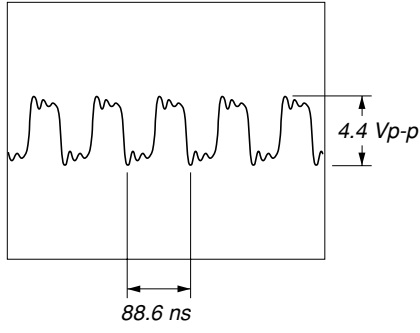
1 IC601 9 (MCLK1), IC604 20 (XMCK),
21 (XOUT)



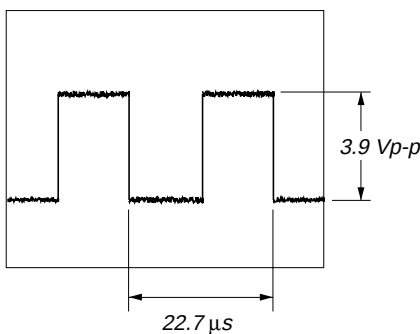
2 IC601 14 (SCKOUT)



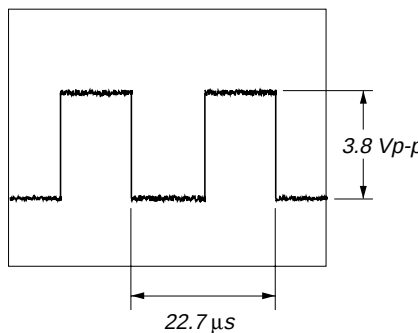
5 IC601 22 (KFSIO), IC604 13 (CKOUT)



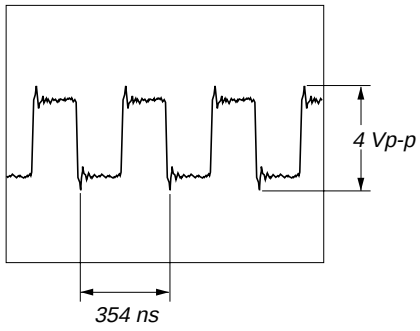
6 IC601 28 (LRCKI2), IC604 15 (LRCK)



3 IC601 19 (LRCKO), IC605 5 (LRCK),
IC606 3 (LRCK (I))

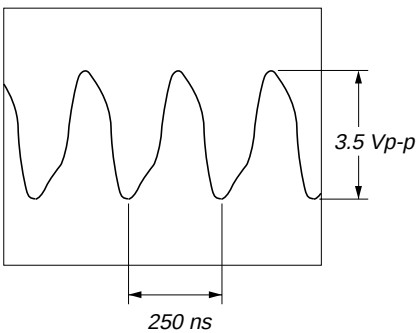


7 IC601 29 (BCKI2), IC604 14 (BCK)

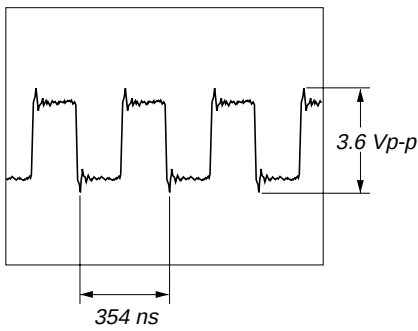


– PANEL Board –

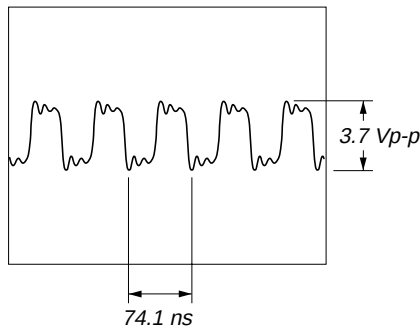
1 IC601 23 (XOUT)



4 IC601 20 (BCKO), IC605 4 (BCK),
IC606 1 (BCK (I))

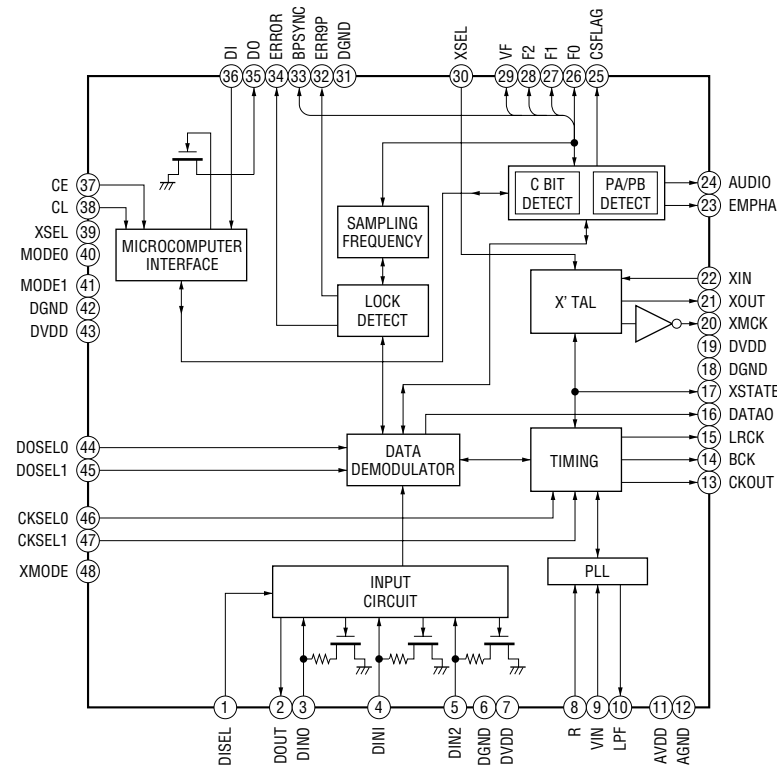


8 IC606 16 (MCLK (I))

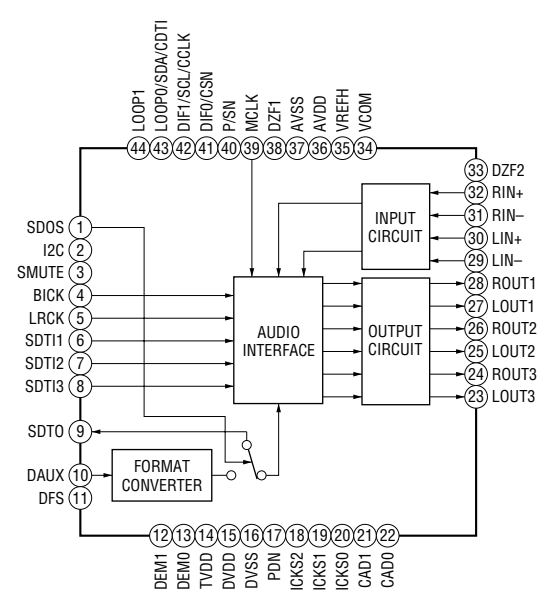


• IC Block Diagrams
– DSP Board –

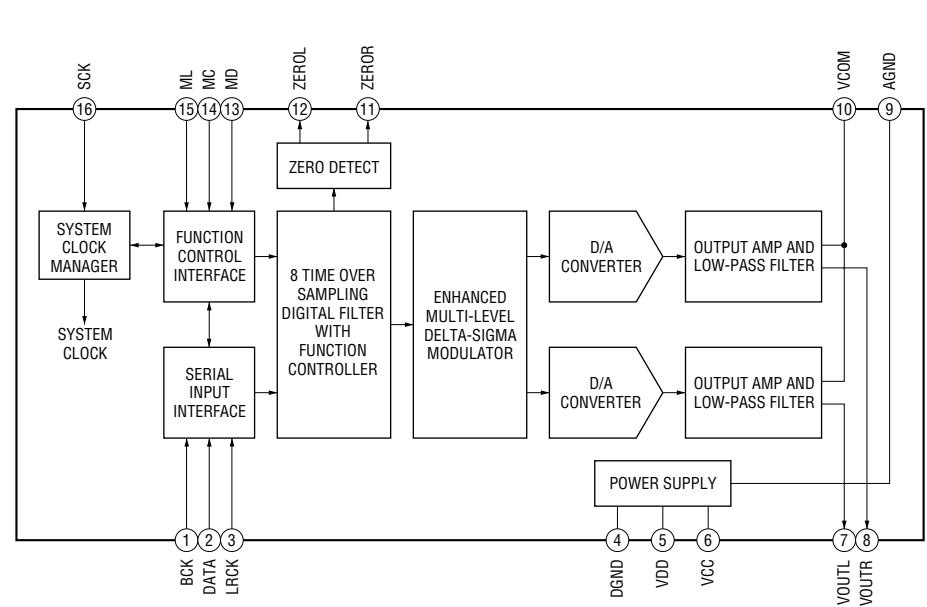
IC604 LC89056W-E



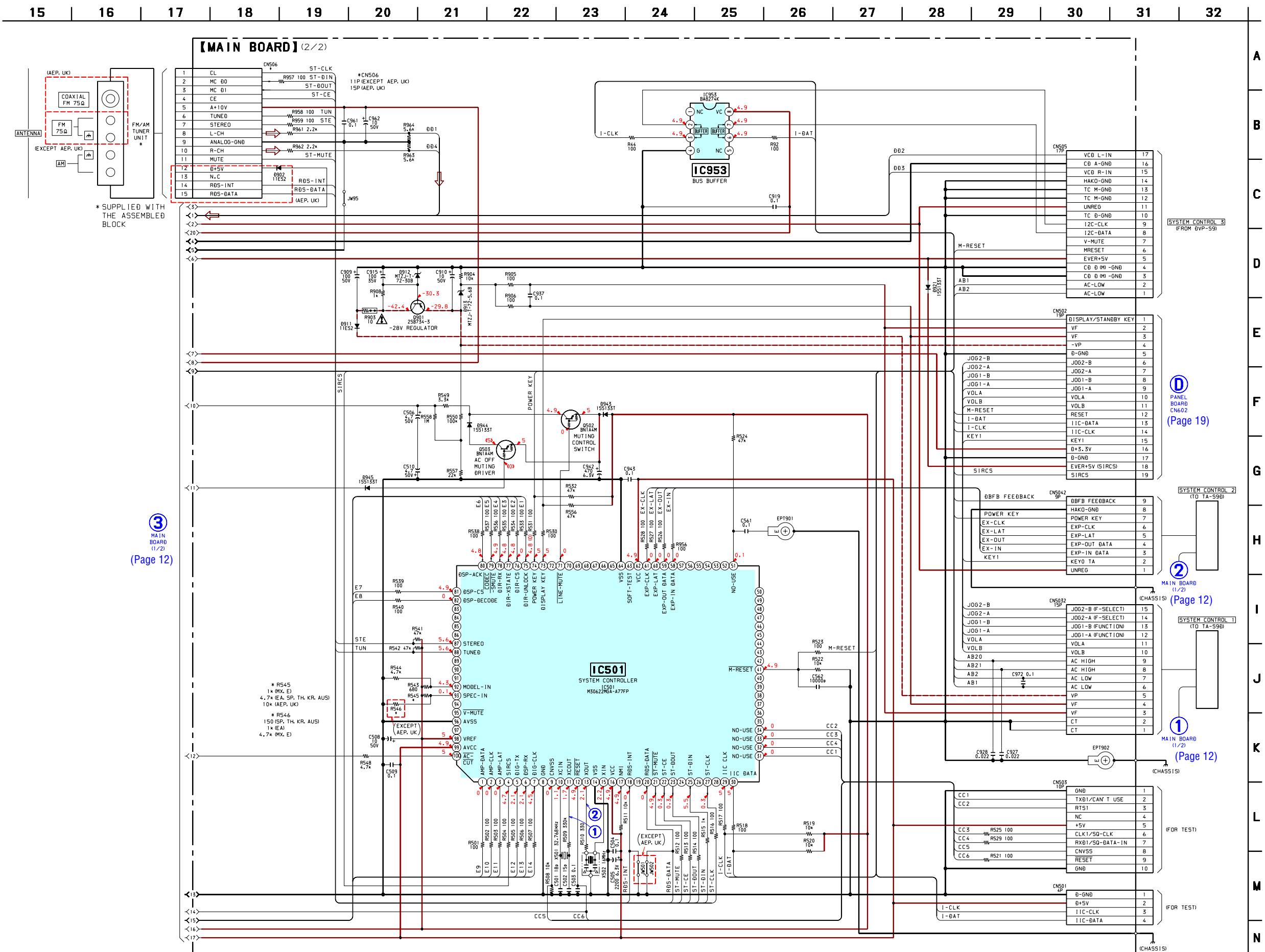
IC605 AK4527



IC606 PCM1748E/2K



5-3. SCHEMATIC DIAGRAM – MAIN Board (2/2) – • See page 11 for Waveforms.

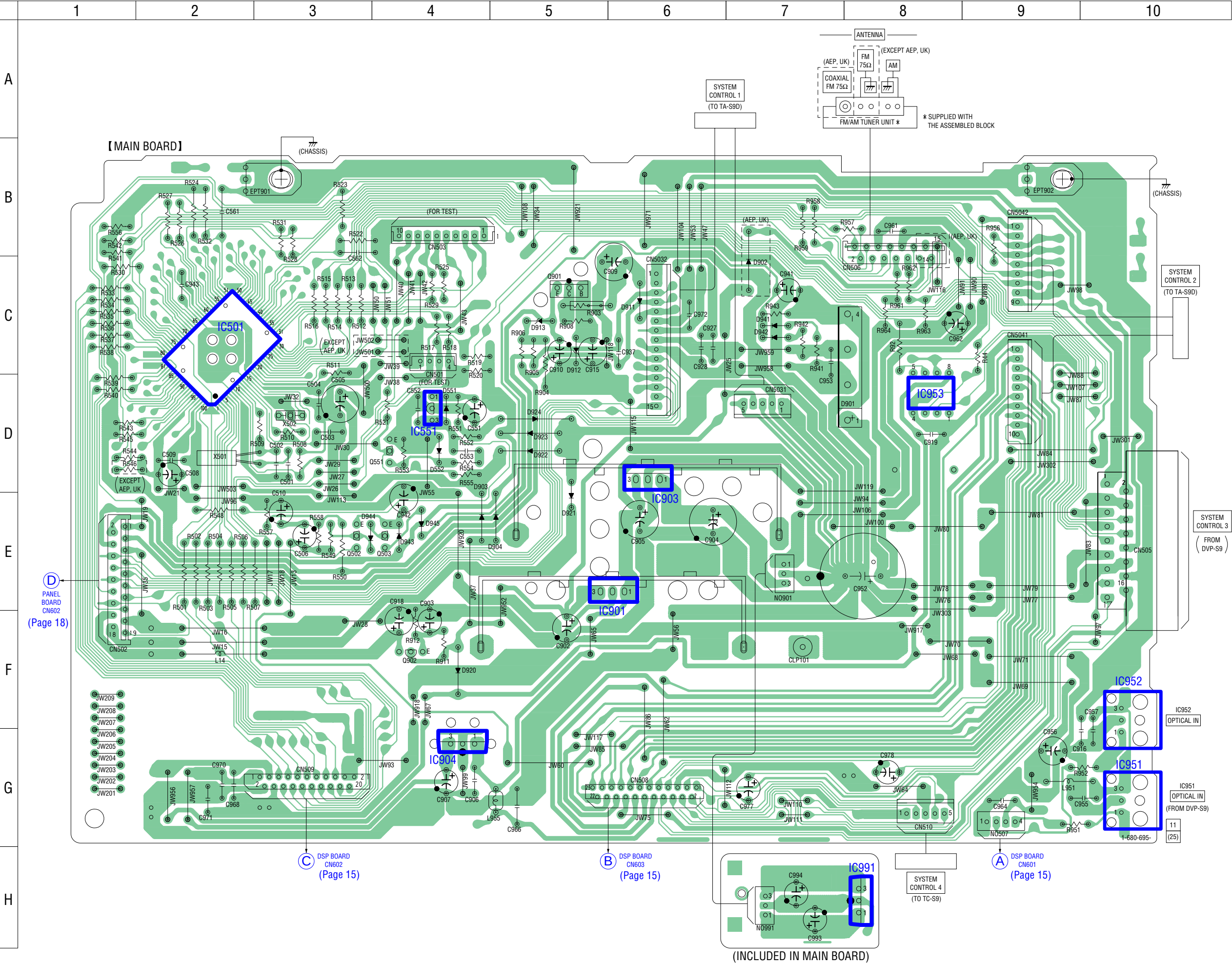


The components identified by mark or dotted line with mark  are critical for safety.
Replace only with part number specified.

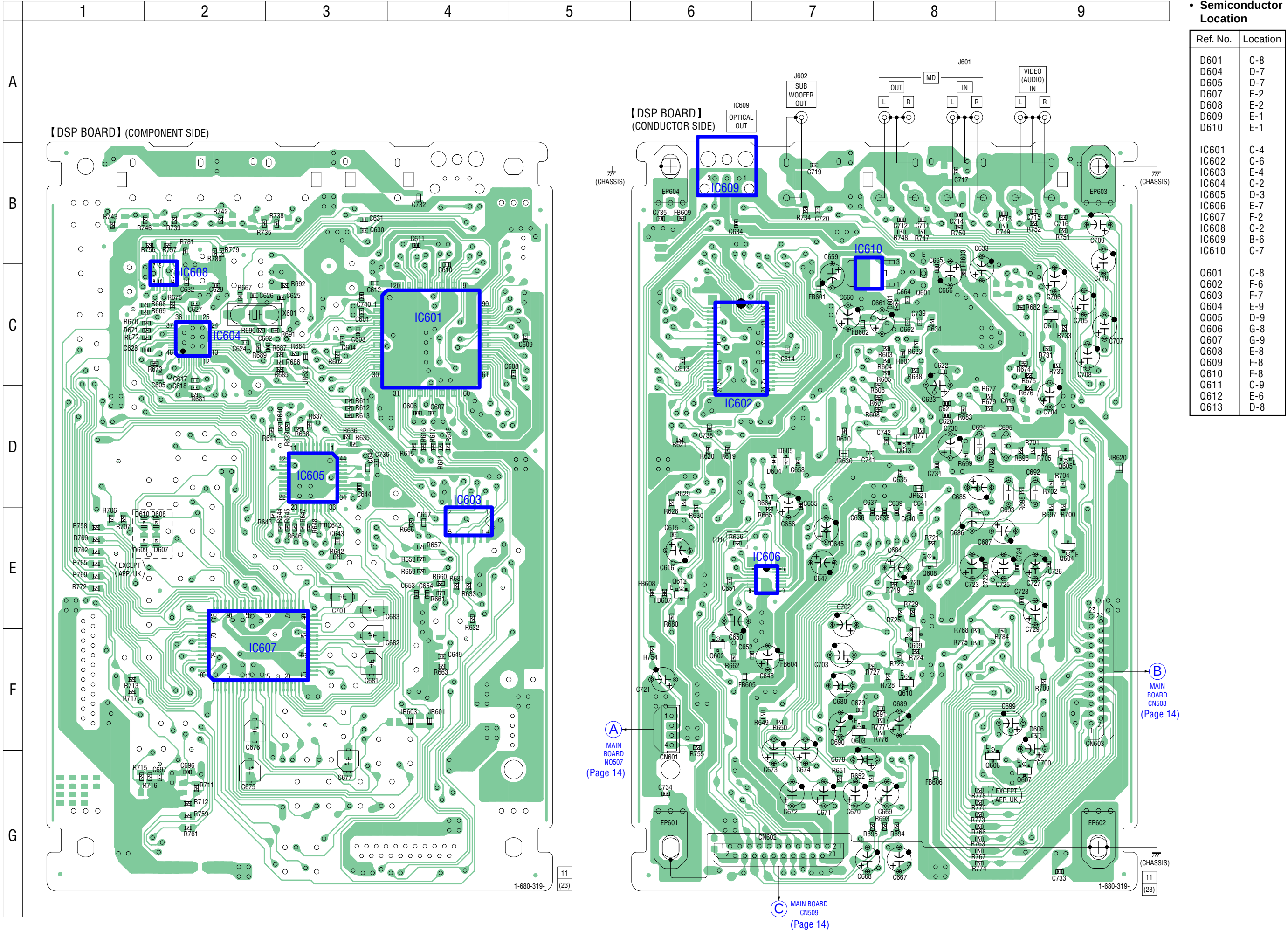
5-4. PRINTED WIRING BOARD – MAIN Board – • See page 10 for Circuit Boards Location.

• Semiconductor Location

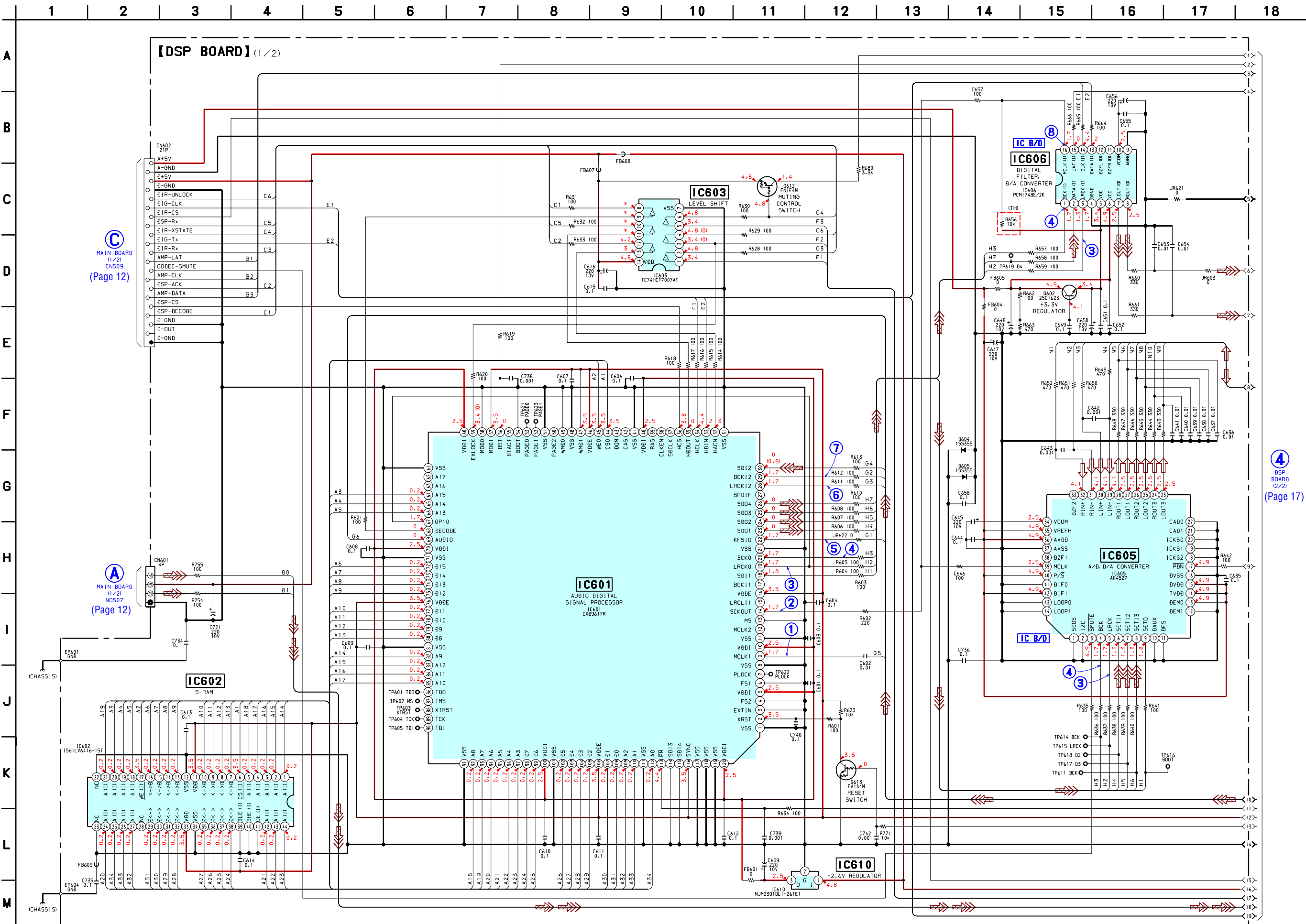
Ref. No.	Location
D551	D-4
D552	D-4
D901	C-8
D902	C-7
D903	E-4
D904	E-5
D911	C-6
D912	C-5
D913	C-5
D920	F-4
D921	E-5
D922	D-5
D923	D-5
D924	D-5
D941	C-7
D942	C-7
D943	E-4
D944	E-3
D945	E-4
IC501	C-2
IC551	D-4
IC901	E-6
IC903	D-6
IC904	G-4
IC951	G-10
IC952	F-10
IC953	D-8
IC991	H-8
Q502	E-3
Q503	E-4
Q551	D-4
Q901	C-5
Q902	F-4



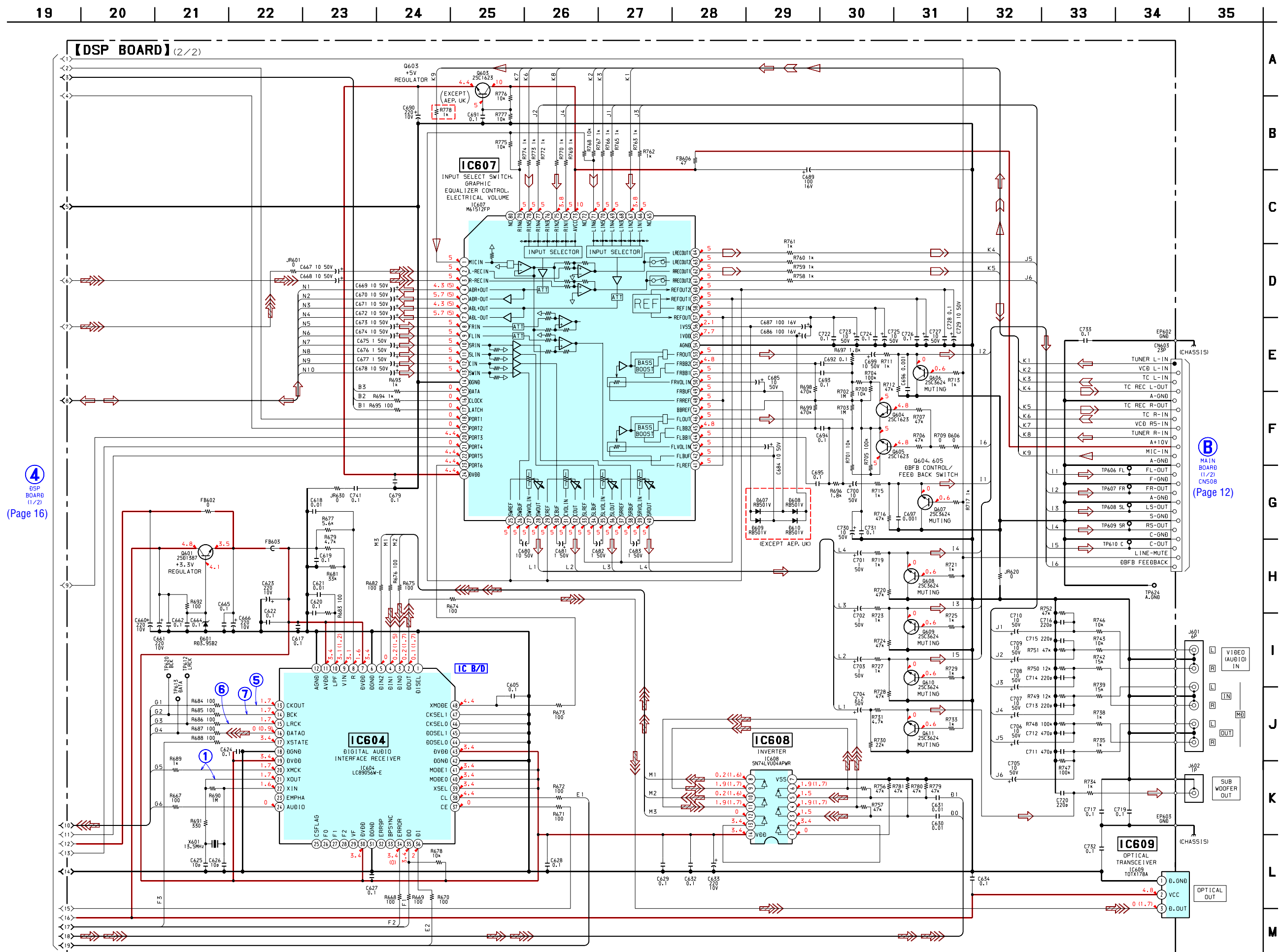
5-5. PRINTED WIRING BOARD – DSP Board – • See page 10 for Circuit Boards Location.



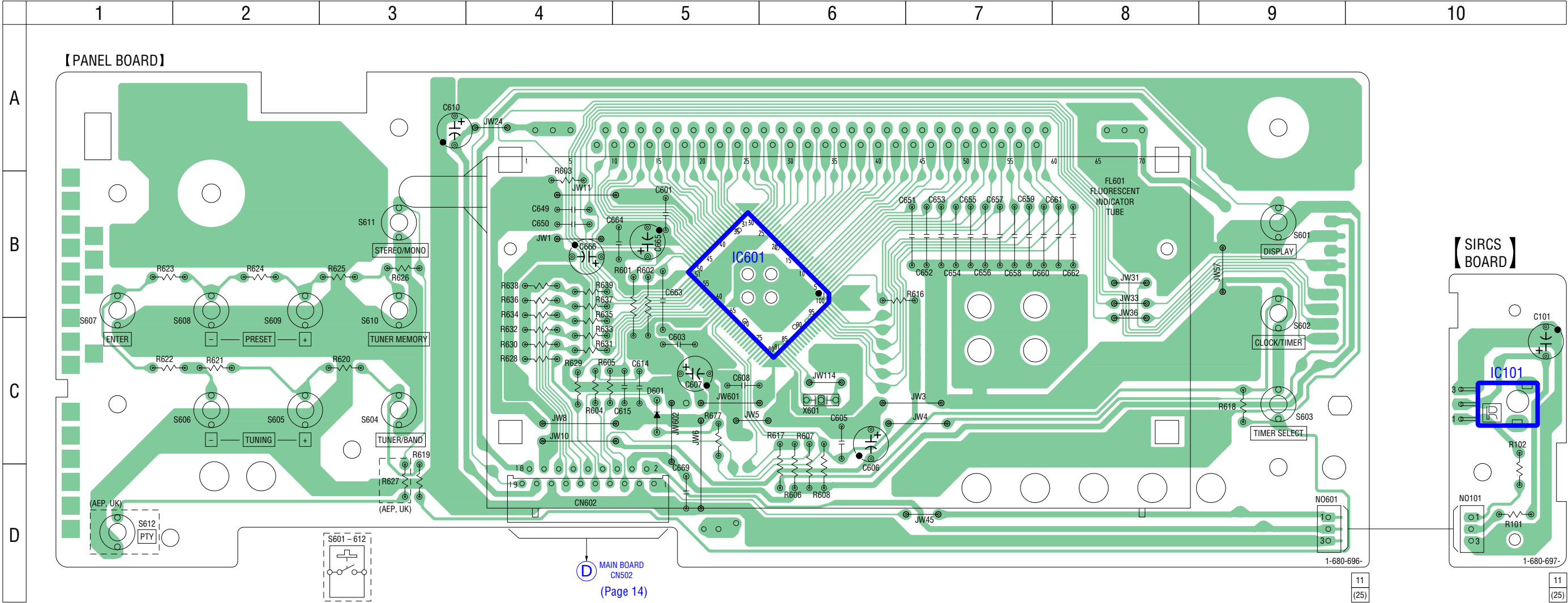
5-6. SCHEMATIC DIAGRAM – DSP Board (1/2) – • See page 11 for Waveforms. • See page 11 for IC Block Diagrams.



5-7. SCHEMATIC DIAGRAM – DSP Board (2/2) – • See page 11 for Waveforms. • See page 11 for IC Block Diagram.



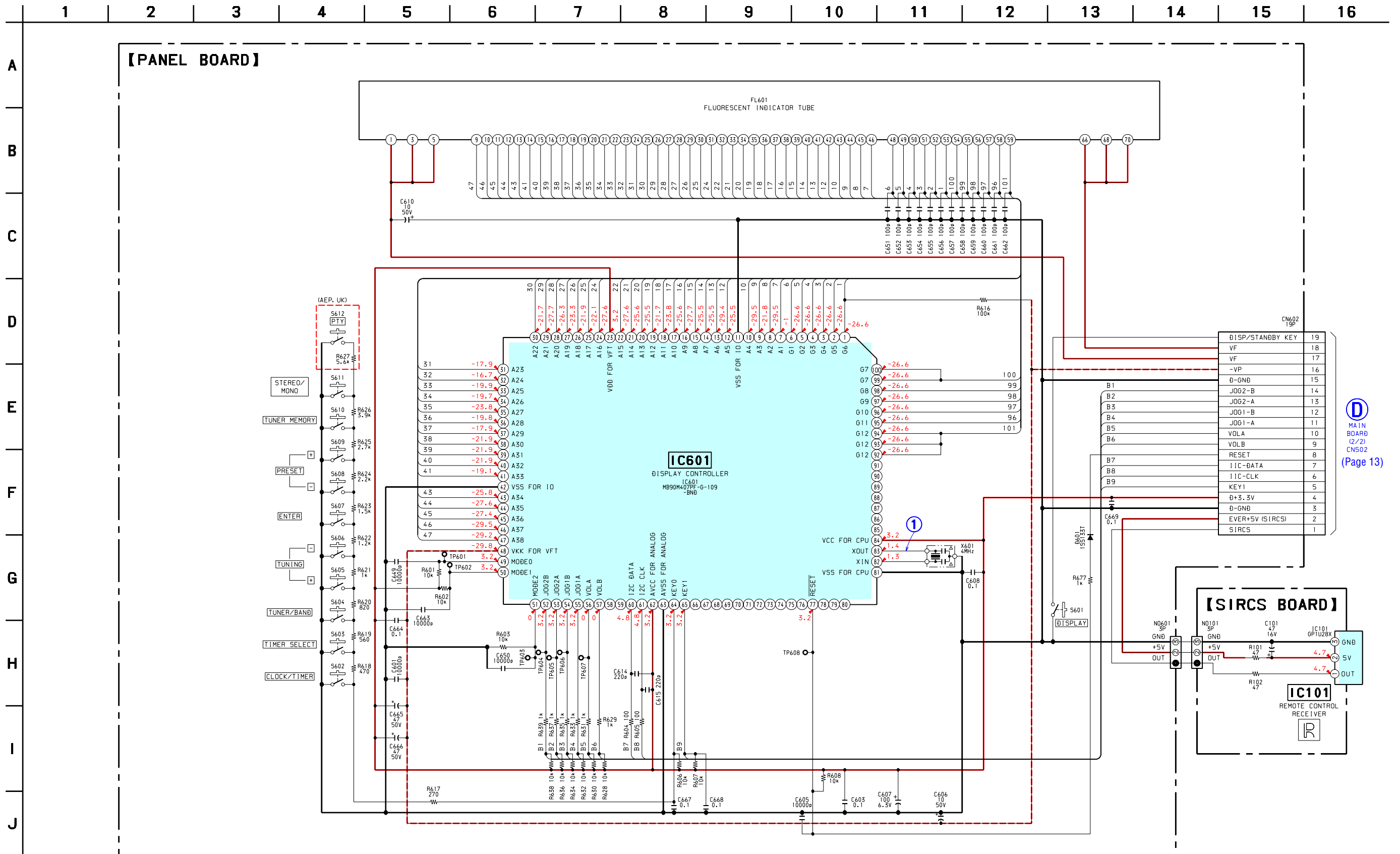
5-8. PRINTED WIRING BOARDS – PANEL Section – • See page 10 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D601	C-5
IC101	C-10
IC601	B-5

5-9. SCHEMATIC DIAGRAM – PANEL Section – • See page 11 for Waveform.



5-10. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 M30622MGA-A77FP (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	AMP-DATA	O	Serial data output to the M61512FP (IC607)
2	AMP-CLK	O	Serial data transfer clock signal output to the M61512FP (IC607)
3	AMP-LAT	O	Serial data latch pulse signal output to the M61512FP (IC607)
4	SIRCS	I	Remote control signal input from the remote control receiver (IC101)
5	DIG-TX	O	Serial data output to the CXD9617R (IC601), digital audio interface receiver (IC604) and digital filter (IC606)
6	DSP-RX	I	Serial data input from the digital audio interface receiver (IC604)
7	DIG-CLK	O	Serial data transfer clock signal output to the CXD9617R (IC601), digital audio interface receiver (IC604) and digital filter (IC606)
8	GND	—	Ground terminal
9	CNVSS	—	Not used
10	XCIN	I	Sub system clock input terminal (32.768 kHz)
11	XCOUT	O	Sub system clock output terminal (32.768 kHz)
12	<u>RESET</u>	I	System reset signal input from the reset signal generator (IC551) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+5V)
17	NMI	I	Non-maskable interrupt input terminal Fixed at “H” in this set
18	RDS-INT	I	Serial data transfer clock signal input from the RDS decoder on the FM/AM tuner unit (Used for the AEP and UK models)
19	—	—	Not used (open)
20	RDS-DATA	I	Serial data input from the RDS decoder on the FM/AM tuner unit (Used for the AEP and UK models)
21	<u>ST-MUTE</u>	O	Tuner muting on/off control signal output to the FM/AM tuner unit “L”: muting on
22	ST-CE	O	Chip enable signal output to the FM/AM tuner unit
23	ST-DOUT	O	Serial data output to the FM/AM tuner unit
24	—	—	Not used (open)
25	ST-DIN	I	Serial data input from the FM/AM tuner unit
26	—	—	Not used (open)
27	ST-CLK	O	Serial data transfer clock signal output to the FM/AM tuner unit
28	—	—	Not used (open)
29	IIC CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the display controller (IC601) and DVP-S9
30	IIC DATA	I/O	Communication data bus with the display controller (IC601) and DVP-S9
31 to 34	NO-USE	—	Not used
35 to 40	—	—	Not used (open)
41	<u>M-RESET</u>	O	Reset signal output to the display controller (IC601) “L”: reset
42 to 50	—	—	Not used (open)
51	NO-USE	—	Not used
52 to 57	—	—	Not used (open)
58	EXP-IN DATA	I	Serial data input from the I/O expander in the TA-S9D
59	EXP-OUT DATA	O	Serial data output to the I/O expander in the TA-S9D
60	EXP-LAT	O	Serial data latch pulse signal output to the I/O expander in the TA-S9D
61	EXP-CLK	O	Serial data transfer clock signal output to the I/O expander in the TA-S9D

Pin No.	Pin Name	I/O	Description
62	VCC	—	Power supply terminal (+5V)
63	SOFT-TEST	O	Soft test output terminal Not used (open)
64	VSS	—	Ground terminal
65 to 70	—	—	Not used (open)
71	<u>LINE-MUTE</u>	O	Audio line muting on/off control signal output to the audio line circuit “L”: muting on
72	—	—	Not used (open)
73	DISPLAY KEY	I	DISPLAY switch (S601) input terminal
74	POWER KEY	I	Power on/off switch in the TA-S9D input terminal
75	DIR-UNLOCK	I	PLL lock error and data error flag input from the digital audio interface receiver (IC604)
76	DIR-CS	O	Chip enable signal output to the digital audio interface receiver (IC604)
77	DIR-XSTATE	I	Source clock switching monitor input from the digital audio interface receiver (IC604)
78	DIR-RX	I	Read data input from the digital audio interface receiver (IC604)
79	<u>CODEC-SMUTE</u>	O	Soft muting on/off control signal output to the A/D, D/A converter (IC605) “L”: muting on
80	DSP-ACK	I	Acknowledge signal input from the CXD9617R (IC601)
81	DSP-CS	O	Chip select signal output to the CXD9617R (IC601)
82	DSP-DECODE	I	Decode signal input from the CXD9617R (IC601)
83 to 86	—	—	Not used (open)
87	STEREO	I	FM stereo detection signal input from the FM/AM tuner unit “L”: stereo
88	TUNED	I	Tuning detection signal input from the FM/AM tuner unit “L”: tuned
89 to 91	—	—	Not used (open)
92	MODEL-IN	I	Model setting terminal
93	SPEC-IN	I	Specification setting terminal
94	—	—	Not used (open)
95	<u>V-MUTE</u>	O	Video muting on/off control signal output terminal “L”: muting on Not used (open)
96	AVSS	—	Ground terminal
97	—	—	Not used (open)
98	VREF	I	Reference voltage (+5V) input terminal
99	AVCC	—	Power supply terminal (+5V)
100	<u>AC-CUT</u>	I	AC cut on/off detection signal input from the reset signal generator (IC551) “L”: AC cut on, “H”: AC cut off or checked

• DSP BOARD IC601 CXD9617R (AUDIO DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	VSS	—	Ground terminal
2	XRST	I	Reset signal input from the M61512FP (IC607) “L”: reset
3	EXTIN	I	Master clock signal input terminal Not used (fixed at “L”)
4	FS2	I	Sampling frequency selection signal input terminal Not used (fixed at “L”)
5	VDDI	—	Power supply terminal (+2.6V)
6	FS1	I	Sampling frequency selection signal input terminal Not used (fixed at “L”)
7	PLOCK	O	Internal PLL lock signal output terminal Not used (open)
8	VSS	—	Ground terminal
9	MCLK1	I	Oscillation clock signal input from the digital audio interface receiver (IC604)
10	VDDI	—	Power supply terminal (+2.6V)
11	VSS	—	Ground terminal
12	MCLK2	O	Oscillation clock signal output terminal Not used (open)
13	MS	I	Master/slave selection signal input terminal “L”: slave, “H”: master (fixed at “L” in this set)
14	SCKOUT	O	Internal system clock signal output to the digital filter (IC606)
15	LRCKI1	I	L/R sampling clock signal (44.1 kHz) input terminal Not used (open)
16	VDDE	—	Power supply terminal (+3.3V)
17	BCKI1	I	Bit clock signal (2.8224 MHz) input terminal Not used (open)
18	SDI1	I	Audio serial data input from the D/A, A/D converter (IC605)
19	LRCKO	O	L/R sampling clock signal (44.1 kHz) output to the D/A, A/D converter (IC605) and digital filter (IC606)
20	BCKO	O	Bit clock signal (2.8224 MHz) output to the D/A, A/D converter (IC605) and digital filter (IC606)
21	VSS	—	Ground terminal
22	KFSIO	I	Audio clock signal input from the digital audio interface receiver (IC604)
23 to 25	SDO1 to SDO3	O	Audio serial data output to the A/D, D/A converter (IC604)
26	SDO4	O	Audio serial data output to the digital filter (IC606)
27	SPDIF	O	S/PDIF signal output terminal Not used (open)
28	LRCKI2	I	L/R sampling clock signal (44.1 kHz) input from the digital audio interface receiver (IC604)
29	BCKI2	I	Bit clock signal (2.8224 MHz) input from the digital audio interface receiver (IC604)
30	SDI2	I	Audio serial data input from the digital audio interface receiver (IC604)
31	VSS	—	Ground terminal
32	HACN	O	Acknowledge signal output to the system controller (IC501)
33	HDIN	I	Write data input from the system controller (IC501)
34	HCLK	I	Clock signal input from the system controller (IC501)
35	HDOUT	O	Read data output to the system controller (IC501)
36	HCS	I	Chip select signal input from the system controller (IC501)
37	SDCLK	O	Clock signal output terminal Not used (open)
38	CLKEN	O	Clock enable signal output terminal Not used (open)
39	RAS	O	Row address strobe signal output terminal Not used (open)
40	VDDI	—	Power supply terminal (+2.6V)
41	VSS	—	Ground terminal
42	CAS	O	Column address strobe signal output terminal Not used (open)
43	DQM	O	Output terminal of data input/output mask Not used (open)
44	CS0	O	Chip select signal output to the S-RAM (IC602)
45	WE0	O	Write enable signal output to the S-RAM (IC602)
46	VDDE	—	Power supply terminal (+3.3V)
47	WMD1	I	S-RAM wait mode setting terminal Fixed at “H” in this set

Pin No.	Pin Name	I/O	Description
48	VSS	—	Ground terminal
49	WMD0	I	S-RAM wait mode setting terminal Fixed at “L” in this set
50	PAGE2	O	Page selection signal output terminal Not used (open)
51	VSS	—	Ground terminal
52, 53	PAGE1, PAGE0	O	Page selection signal output terminal Not used (open)
54	BOOT	I	Boot mode control signal input terminal Not used (fixed at “L”)
55	BTACT	O	Boot mode state display signal output terminal Not used (open)
56	BST	I	Boot trap signal input from the M61512FP (IC607)
57	MOD1	I	PLL input frequency select terminal “L”: 384fs, “H”: 256fs (fixed at “H” in this set)
58	MOD0	I	Mode setting terminal “L”: single chip mode, “H”: use prohibition (fixed at “L” in this set)
59	EXLOCK	I	PLL lock error and data error flag input from the digital audio interface receiver (IC604)
60	VDDI	—	Power supply terminal (+2.6V)
61	VSS	—	Ground terminal
62, 63	A17, A16	O	Address signal output terminal Not used (open)
64 to 66	A15 to A13	O	Address signal output to the S-RAM (IC602)
67	GP10	O	L/R sampling clock signal (44.1 kHz) output to the D/A, A/D converter (IC605) and digital filter (IC606)
68	DECODE	O	Decode signal output to the system controller (IC501)
69	AUDIO	I	Bit 1 input terminal of channel status from the digital audio interface receiver (IC604)
70	VDDI	—	Power supply terminal (+2.6V)
71	VSS	—	Ground terminal
72 to 75	D15 to D12	I/O	Two-way data bus with the S-RAM (IC602)
76	VDDE	—	Power supply terminal (+3.3V)
77 to 80	D11 to D8	I/O	Two-way data bus with the S-RAM (IC602)
81	VSS	—	Ground terminal
82 to 85	A9, A12 to A10	O	Address signal output to the S-RAM (IC602)
86	TDO	O	Simple emulation data output terminal Not used (open)
87	TMS	I	Simple emulation data input start/end detection signal input terminal Not used (open)
88	XTRST	I	Simple emulation asynchronous break input terminal Not used (open)
89	TCK	I	Simple emulation clock signal input terminal Not used (open)
90	TDI	I	Simple emulation data input terminal Not used (open)
91	VSS	—	Ground terminal
92 to 97	A8 to A3	O	Address signal output to the S-RAM (IC602)
98, 99	D7, D6	I/O	Two-way data bus with the S-RAM (IC602)
100	VDDI	—	Power supply terminal (+2.6V)
101	VSS	—	Ground terminal
102 to 105	D5 to D2	I/O	Two-way data bus with the S-RAM (IC602)
106	VDDE	—	Power supply terminal (+3.3V)
107, 108	D1, D0	I/O	Two-way data bus with the S-RAM (IC602)
109, 110	A2, A1	O	Address signal output to the S-RAM (IC602)
111	VSS	—	Ground terminal
112	A0	O	Address signal output to the S-RAM (IC602)
113	$\overline{\text{PM}}$	I	PLL reset signal input from the M61512FP (IC607) “L”: reset
114, 115	SDI3, SDI4	I	Audio serial data input terminal Not used (fixed at “L”)
116	SYNC	I	Synchronous/asynchronous selection signal input terminal “L”: Synchronous, “H”: asynchronous (fixed at “H” in this set)
117 to 119	VSS	—	Ground terminal
120	VDDI	—	Power supply terminal (+2.6V)

• DSP BOARD IC604 LC89056W-E (DIGITAL AUDIO INTERFACE RECEIVER)

Pin No.	Pin Name	I/O	Description
1	DISEL	I	Selection terminal of data input terminal Fixed at “L” in this set
2	DOUT	O	Digital data output to the optical transceiver (IC609)
3	DIN0	I	Digital data input from the optical receiver (IC952) (for DVP-S9)
4	DIN1	I	Digital data input from the optical receiver (IC951) (for external input)
5	DIN2	I	Digital data input terminal Not used (fixed at “L”)
6	DGND	—	Ground terminal (digital system)
7	DVDD	—	Power supply terminal (+3.3V) (digital system)
8	R	I	VCO gain control input terminal
9	VIN	I	VCO free run frequency setting input terminal
10	LPF	O	PLL loop filter setting output terminal
11	AVDD	—	Power supply terminal (+3.3V) (analog system)
12	AGND	—	Ground terminal (analog system)
13	CKOUT	O	Audio clock signal output to the CXD9617R (IC601)
14	BCK	O	Bit clock signal (2.8224 MHz) output to the CXD9617R (IC601)
15	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the CXD9617R (IC601)
16	DATAO	O	Audio serial data output to the CXD9617R (IC601)
17	XSTATE	O	Source clock switching monitor output to the system controller (IC501)
18	DGND	—	Ground terminal (digital system)
19	DVDD	—	Power supply terminal (+3.3V) (digital system)
20	XMCK	O	Oscillation clock signal output to the CXD9617R (IC601)
21	XOUT	O	System clock output terminal (13.5 MHz)
22	XIN	I	System clock input terminal (13.5 MHz)
23	EMPHA	O	Emphasis information of channel status output terminal Not used (open)
24	AUDIO	O	Bit 1 output terminal of channel status to the CXD9617R (IC601)
25	CSFLAG	O	Top 40 bit renovation flag output terminal of channel status Not used (open)
26 to 28	F0 to F2	O	Input frequency calculation result output terminal Not used (open)
29	VF	O	Validity flag output terminal Not used (open)
30	DVDD	—	Power supply terminal (+3.3V) (digital system)
31	DGND	—	Ground terminal (digital system)
32	ERR9P	O	Nine times continuance data transmission error flag output terminal Not used (open)
33	BPSYNC	O	Non-PCM burst and preamble sync signal output terminal Not used (open)
34	ERROR	O	PLL lock error and data error flag output to the system controller (IC501)
35	DO	O	Read data output to the system controller (IC501)
36	DI	I	Write data input from the system controller (IC501)
37	CE	I	Chip enable signal input from the system controller (IC501)
38	CL	I	Clock signal input from the system controller (IC501)
39	XSEL	I	Selection input terminal of vibrator frequency terminal Fixed at “H” in this set
40	MODE0	I	Mode setting input terminal Fixed at “H” in this set
41	MODE1	I	Mode setting input terminal Fixed at “H” in this set
42	DGND	—	Ground terminal (digital system)
43	DVDD	—	Power supply terminal (+3.3V) (digital system)
44	DOSEL0	I	Output data format selection signal input terminal Fixed at “L” in this set
45	DOSEL1	I	Output data format selection signal input terminal Fixed at “L” in this set
46	CKSEL0	I	Output clock selection signal input terminal Fixed at “L” in this set
47	CKSEL1	I	Output clock selection signal input terminal Fixed at “L” in this set
48	XMODE	I	System reset signal input from the M61512FP (IC607)

• DSP BOARD IC605 AK4527 (A/D, D/A CONVERTER)

Pin No.	Pin Name	I/O	Description
1	SDOS	I	Audio serial data source selection signal input terminal “L”: internal ADC output, “H”: DAUX input (fixed at “L” in this set)
2	I2C	I	Serial control mode selection signal input terminal “L”: 3-wire serial, “H”: I2C bus
3	SMUTE	I	Soft muting on/off signal input from the system controller (IC501) “L”: muting on
4	BICK	I	Bit clock signal (2.8224 MHz) input from the CXD9617R (IC601)
5	LRCK	I	L/R sampling clock (44.1 kHz) signal input from the CXD9617R (IC601)
6 to 8	SDTI1 to SDIT3	I	Audio serial data input from the CXD9617R (IC601)
9	SDTO	O	Audio serial data output to the CXD9617R (IC601)
10	DAUX	I	Audio serial data input terminal Not used (fixed at “L”)
11	DFS	I	Double speed sampling mode signal input terminal “L”: normal speed, “H”: double speed (fixed at “L” in this set)
12	DEM1	I	De-emphasis signal input terminal Fixed at “L” in this set
13	DEM0	I	De-emphasis signal input terminal Fixed at “H” in this set
14	TVDD	—	Power supply terminal (+5V) (for output buffer)
15	DVDD	—	Power supply terminal (+5V) (digital system)
16	DVSS	—	Ground terminal (digital system)
17	PDN	I	Power down and reset signal input from the M61512FP (IC607) “L”: power down and reset
18 to 20	ICKS2 to ICKS0	I	Input clock signal selection terminal Fixed at “L” in this set
21, 22	CAD1, CAD0	I	Chip address signal input terminal Not used (fixed at “L”)
23	LOUT3	O	Analog signal output for center to the M61512FP (IC607)
24	ROUT3	O	Analog signal output for sub woofer to the M61512FP (IC607)
25	LOUT2	O	Analog signal output for surround L-ch to the M61512FP (IC607)
26	ROUT2	O	Analog signal output for surround R-ch to the M61512FP (IC607)
27	LOUT1	O	Analog signal output for front L-ch to the M61512FP (IC607)
28	ROUT1	O	Analog signal output for front R-ch to the M61512FP (IC607)
29	LIN-	I	L-ch analog signal negative input from the M61512FP (IC607)
30	LIN+	I	L-ch analog signal positive input from the M61512FP (IC607)
31	RIN-	I	R-ch analog signal negative input from the M61512FP (IC607)
32	RIN+	I	R-ch analog signal positive input from the M61512FP (IC607)
33	DZF2	I	Zero input detection terminal Not used (open)
34	VCOM	O	Common voltage output terminal Large external capacitor is used to reduce power supply noise
35	VREFH	I	Reference voltage (+5V) input terminal
36	AVDD	—	Power supply terminal (+5V) (analog system)
37	AVSS	—	Ground terminal (analog system)
38	DZF1	I	Zero input detection terminal Not used (open)
39	MCLK	I	Master clock signal input from the CXD9617R (IC601)
40	p/ $\overline{\text{S}}$	I	Parallel/serial selection signal input terminal “L”: serial control mode, “H”: parallel control mode (fixed at “H” in this set)
41	DIF0	I	Audio data interface format terminal Fixed at “L” in this set
42	DIF1	I	Audio data interface format terminal Fixed at “H” in this set
43, 44	LOOP0, LOOP1	I	Loop back mode setting terminal Fixed at “L” in this set

• PANEL BOARD IC601 MB90M407PF-G-109-BND (DISPLAY CONTROLLER)

Pin No.	Pin Name	I/O	Description
1 to 6	G6 to G1	O	Grid drive signal output to the fluorescent indicator tube (FL601)
7 to 10	A1 to A4	O	Segment drive signal output to the fluorescent indicator tube (FL601)
11	VSS FOR IO	—	Ground terminal (for I/O)
12 to 22	A5 to A15	O	Segment drive signal output to the fluorescent indicator tube (FL601)
23	VDD FOR VFT	—	Power supply terminal (+3.3V) (for VFT)
24 to 41	A16 to A33	O	Segment drive signal output to the fluorescent indicator tube (FL601)
42	VSS FOR IO	—	Ground terminal (for I/O)
43 to 47	A34 to A38	O	Segment drive signal output to the fluorescent indicator tube (FL601)
48	VKK FOR VFT	—	Power supply terminal (−28V) (for VFT)
49	MODE0	—	Chip mode selection terminal Not used (fixed at “H”)
50	MODE1	—	Chip mode selection terminal Not used (fixed at “H”)
51	MODE2	—	Chip mode selection terminal Not used (fixed at “L”)
52	JOG2B	I	Jog dial pulse input from the rotary encoder (for sound) in the TA-S9D (B phase input)
53	JOG2A	I	Jog dial pulse input from the rotary encoder (for sound) in the TA-S9D (A phase input)
54	JOG1B	I	Jog dial pulse input from the rotary encoder (for function) in the TA-S9D (B phase input)
55	JOG1A	I	Jog dial pulse input from the rotary encoder (for function) in the TA-S9D (A phase input)
56	VOLA	I	Jog dial pulse input from the rotary encoder (for volume) in the TA-S9D (A phase input)
57	VOLB	I	Jog dial pulse input from the rotary encoder (for volume) in the TA-S9D (B phase input)
58, 59	—	—	Not used (open)
60	I2C DATA	I/O	Communication data bus with the system controller (IC501) and DVP-S9
61	I2C CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the system controller (IC501) and DVP-S9
62	AVCC FOR ANALOG	—	Power supply terminal (+3.3V) (for analog)
63	AVSS FOR ANALOG	—	Ground terminal (for analog)
64	KEY0	I	Key input terminal (A/D input) CLOCK/TIMER, TIMER SELECT, TUNER/BAND, TUNING +/-, ENTER, PRESET +/-, TUNER MEMORY, STEREO/MONO, PTY (S602 to S612) keys input PTY (S612) key: Used for the AEP and UK models
65	KEY1	I	Key input terminal for TA-S9D (A/D input)
66 to 76	—	—	Not used (open)
77	RESET	I	Reset signal input from the system controller (IC501) “L”: reset
78 to 80	—	—	Not used (open)
81	VSS FOR CPU	—	Ground terminal (for CPU)
82	XIN	I	System clock input terminal (4 MHz)
83	XOUT	O	System clock output terminal (4 MHz)
84	VCC FOR CPU	—	Power supply terminal (+3.3V)
85 to 91	—	—	Not used (open)
92 to 94	G12	O	Grid drive signal output to the fluorescent indicator tube (FL601)
95 to 98	G11 to G8	O	Grid drive signal output to the fluorescent indicator tube (FL601)
99, 100	G7	O	Grid drive signal output to the fluorescent indicator tube (FL601)

SECTION 6

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

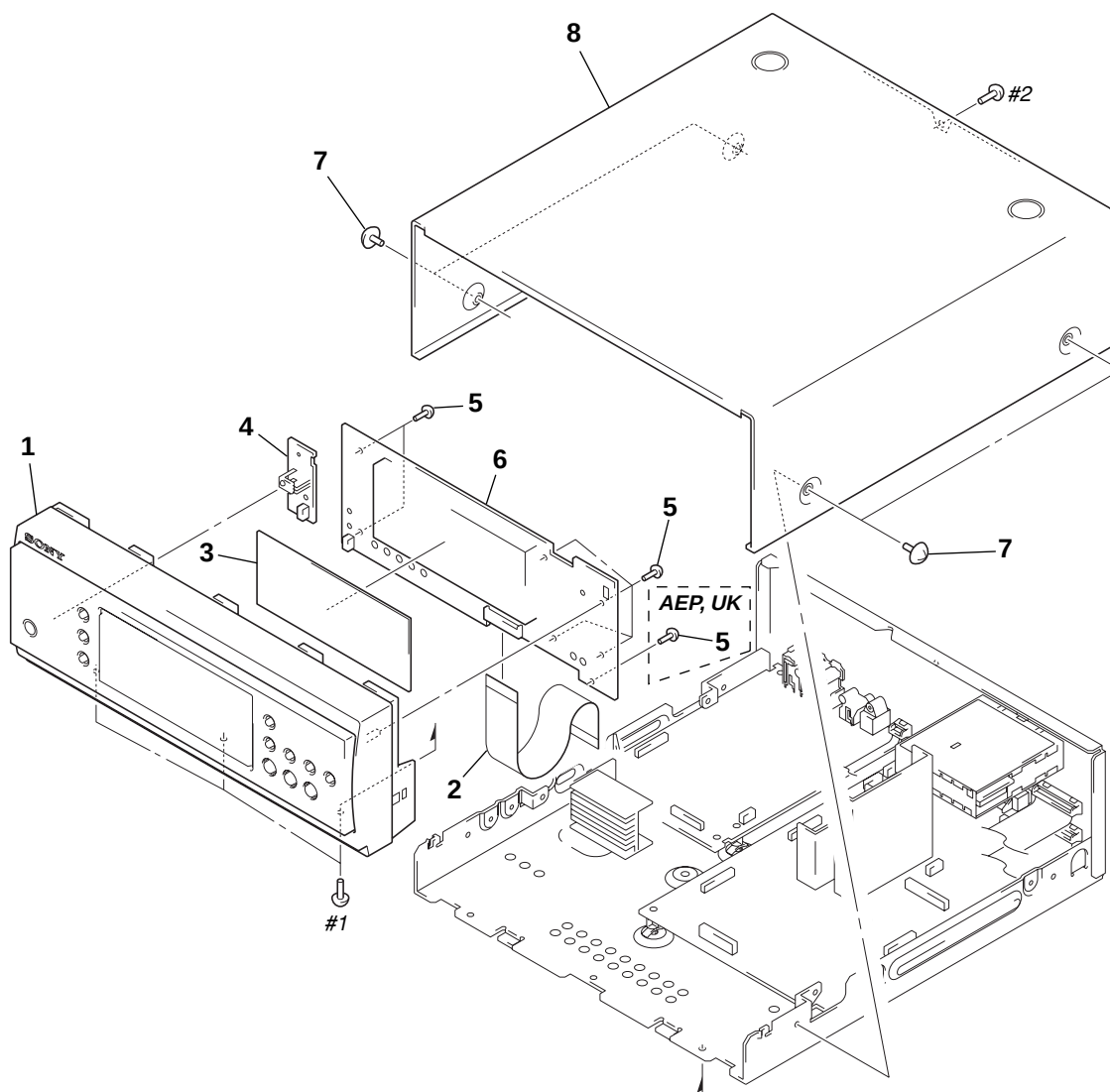
↑
Parts Color

↑
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.

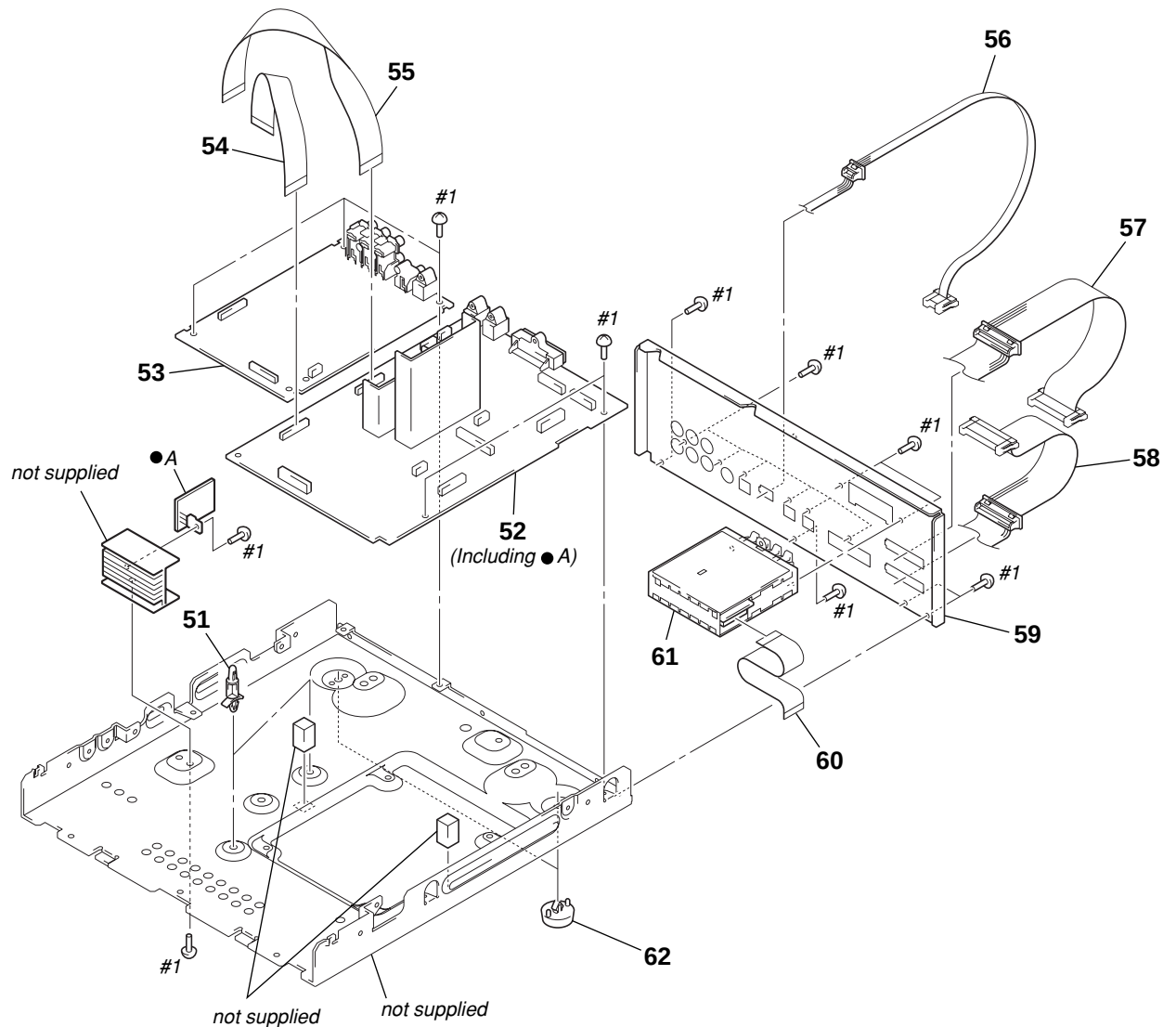
- Abbreviation
AUS : Australian model
EA : Saudi Arabia model
KR : Korean model
MX : Mexican model
SP : Singapore model
TH : Thai model

6-1. CASE, FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4953-451-1	PANEL ASSY (ST), FRONT (AEP, UK)		6	A-4727-701-A	PANEL BOARD, COMPLETE (TH)	
1	X-4953-452-1	PANEL ASSY (ST), FRONT (AUS, EA, E, KR, MX, SP, TH)		6	A-4727-702-A	PANEL BOARD, COMPLETE (AUS, EA, E, KR, MX, SP)	
2	1-773-114-11	WIRE (FLAT TYPE) (19 CORE)		7	3-363-099-21	SCREW (CASE 3 TP2)	
3	4-232-351-01	FILTER (FL)		8	4-233-134-31	CASE	
4	1-680-697-11	SIRCS BOARD		#1	7-685-646-79	SCREW +BVTP (3X8 TYPE2 N-S)	
5	4-951-620-01	SCREW (2.6X8), +BVTP		#2	7-685-871-01	SCREW +BVTT (3X6 (S))	
6	A-4727-699-A	PANEL BOARD, COMPLETE (AEP, UK)					

6-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	4-924-098-01	HOLDER, PC BOARD		59	4-232-349-01	PANEL (ST-DVD), BACK (AEP, UK)	
52	A-4727-046-A	MAIN BOARD, COMPLETE (TH)		59	4-232-349-11	PANEL (ST-DVD), BACK (AUS)	
52	A-4727-047-A	MAIN BOARD, COMPLETE (AEP, UK)		59	4-232-349-21	PANEL (ST-DVD), BACK (EA)	
52	A-4727-049-A	MAIN BOARD, COMPLETE (E, MX)		59	4-232-349-31	PANEL (ST-DVD), BACK (E, SP)	
52	A-4727-053-A	MAIN BOARD, COMPLETE (EA)		59	4-232-349-41	PANEL (ST-DVD), BACK (MX)	
52	A-4727-275-A	MAIN BOARD, COMPLETE (AUS, KR, SP)		59	4-232-349-51	PANEL (ST-DVD), BACK (TH)	
53	A-4727-694-A	DSP BOARD, COMPLETE		59	4-232-349-61	PANEL (ST-DVD), BACK (KR)	
		(AUS, EA, E, KR, MX, SP)		60	1-769-940-11	WIRE (FLAT TYPE) (11 CORE)	
53	A-4727-696-A	DSP BOARD, COMPLETE (AEP, UK)				(AUS, EA, E, KR, MX, SP, TH)	
53	A-4727-697-A	DSP BOARD, COMPLETE (TH)		60	1-773-004-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK)	
54	1-757-599-11	WIRE (FLAT TYPE) (21 CORE)		61	1-693-529-11	TUNER (FM/AM) (AEP, UK)	
55	1-757-600-11	WIRE (FLAT TYPE) (23 CORE)		61	1-693-531-71	TUNER (FM/AM) (AUS, EA, E, MX, SP, TH)	
56	1-757-629-11	CORD (WITH CONNECTOR) 5P		61	1-693-538-11	TUNER (FM/AM) (KR)	
57	1-757-631-11	CORD (WITH CONNECTOR) 20P		62	4-965-822-01	FOOT	
58	1-757-630-11	CORD (WITH CONNECTOR) 19P		#1	7-685-646-79	SCREW +BVTP (3X8 TYPE2 N-S)	

SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
AUS : Australian model MX : Mexican model
EA : Saudi Arabia model SP : Singapore model
KR : Korean model TH : Thai model

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4727-694-A	DSP BOARD, COMPLETE (AUS, EA, E, KR, MX, SP)		C638	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
	A-4727-696-A	DSP BOARD, COMPLETE (AEP, UK)		C639	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
	A-4727-697-A	DSP BOARD, COMPLETE (TH)		C640	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
	*****			C641	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
	< CAPACITOR/RESISTOR >			C642	1-162-971-11	CERAMIC CHIP 0.001uF 10%	50V
C601	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C643	1-162-971-11	CERAMIC CHIP 0.001uF 10%	50V
C602	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C644	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C603	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C645	1-126-934-11	ELECT 220uF 20%	10V
C604	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C646	1-216-809-11	METAL CHIP 100 5%	1/16W
C605	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C647	1-126-934-11	ELECT 220uF 20%	10V
C606	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C648	1-126-934-11	ELECT 220uF 20%	10V
C607	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C649	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C608	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C650	1-126-934-11	ELECT 220uF 20%	10V
C609	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C651	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C610	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C652	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C611	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C653	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C612	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C654	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C613	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C655	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C614	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C656	1-126-934-11	ELECT 220uF 20%	10V
C615	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C657	1-216-809-11	METAL CHIP 100 5%	1/16W
C616	1-126-934-11	ELECT 220uF 20%	10V	C658	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C617	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C659	1-126-934-11	ELECT 220uF 20%	10V
C618	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C660	1-126-934-11	ELECT 220uF 20%	10V
C619	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C661	1-126-934-11	ELECT 220uF 20%	10V
C620	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C662	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C621	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C664	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C622	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C665	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C623	1-126-934-11	ELECT 220uF 20%	10V	C666	1-126-934-11	ELECT 220uF 20%	10V
C624	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C667	1-126-964-11	ELECT 10uF 20%	50V
C625	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V	C668	1-126-964-11	ELECT 10uF 20%	50V
C626	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V	C669	1-126-964-11	ELECT 10uF 20%	50V
C627	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C670	1-126-964-11	ELECT 10uF 20%	50V
C628	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C671	1-126-964-11	ELECT 10uF 20%	50V
C629	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C672	1-126-964-11	ELECT 10uF 20%	50V
C630	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C673	1-126-964-11	ELECT 10uF 20%	50V
C631	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C674	1-126-964-11	ELECT 10uF 20%	50V
C632	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C675	1-126-193-11	ELECT 1uF 20%	50V
C633	1-126-934-11	ELECT 220uF 20%	10V	C676	1-126-193-11	ELECT 1uF 20%	50V
C634	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C677	1-126-193-11	ELECT 1uF 20%	50V
C635	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C678	1-126-964-11	ELECT 10uF 20%	50V
C636	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C679	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C637	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C680	1-126-964-11	ELECT 10uF 20%	50V
				C681	1-126-193-11	ELECT 1uF 20%	50V

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
C682	1-126-193-11	ELECT	1uF	20%	50V				< CONNECTOR >				
C683	1-126-193-11	ELECT	1uF	20%	50V								
C684	1-126-964-11	ELECT	10uF	20%	50V		CN601	1-506-469-11	PIN, CONNECTOR 4P				
C685	1-126-964-11	ELECT	10uF	20%	50V		CN602	1-779-289-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P				
C686	1-126-933-11	ELECT	100uF	20%	16V		CN603	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P				
C687	1-126-933-11	ELECT	100uF	20%	16V				< DIODE/RESISTOR >				
C689	1-126-933-11	ELECT	100uF	20%	16V								
C690	1-126-934-11	ELECT	220uF	20%	10V		D601	8-719-158-02	DIODE RD3.9SB2				
C691	1-164-156-11	CERAMIC CHIP	0.1uF		25V		D604	8-719-988-61	DIODE 1SS355TE-17				
C692	1-136-165-00	MYLAR	0.1uF	5%	50V		D605	8-719-988-61	DIODE 1SS355TE-17				
C693	1-136-165-00	MYLAR	0.1uF	5%	50V		D606	1-216-864-11	METAL CHIP 0	5%	1/16W		
C694	1-136-165-00	MYLAR	0.1uF	5%	50V		D607	8-719-058-24	DIODE RB501V-40TE-17 (EXCEPT AEP, UK)				
C695	1-136-165-00	MYLAR	0.1uF	5%	50V		D608	8-719-058-24	DIODE RB501V-40TE-17 (EXCEPT AEP, UK)				
C696	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V		D609	8-719-058-24	DIODE RB501V-40TE-17 (EXCEPT AEP, UK)				
C697	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V		D610	8-719-058-24	DIODE RB501V-40TE-17 (EXCEPT AEP, UK)				
C699	1-126-964-11	ELECT	10uF	20%	50V				< EARTH TERMINAL >				
C700	1-126-964-11	ELECT	10uF	20%	50V								
C701	1-126-193-11	ELECT	1uF	20%	50V		* EP601	1-537-738-21	TERMINAL, EARTH				
C702	1-126-960-11	ELECT	1uF	20%	50V		* EP602	1-537-738-21	TERMINAL, EARTH				
C703	1-126-960-11	ELECT	1uF	20%	50V		* EP603	1-537-738-21	TERMINAL, EARTH				
C704	1-126-961-11	ELECT	2.2uF	20%	50V		* EP604	1-537-738-21	TERMINAL, EARTH				
C705	1-126-964-11	ELECT	10uF	20%	50V				< RESISTOR/FERRITE BEAD >				
C706	1-126-964-11	ELECT	10uF	20%	50V								
C707	1-126-964-11	ELECT	10uF	20%	50V		FB601	1-216-864-11	METAL CHIP 0	5%	1/16W		
C708	1-126-964-11	ELECT	10uF	20%	50V		FB602	1-216-864-11	METAL CHIP 0	5%	1/16W		
C709	1-126-964-11	ELECT	10uF	20%	50V		FB603	1-500-445-21	FERRITE 0uH				
C710	1-126-964-11	ELECT	10uF	20%	50V		FB604	1-216-864-11	METAL CHIP 0	5%	1/16W		
C711	1-162-962-11	CERAMIC CHIP	470PF	10%	50V		FB605	1-216-864-11	METAL CHIP 0	5%	1/16W		
C712	1-162-962-11	CERAMIC CHIP	470PF	10%	50V		FB606	1-216-805-11	METAL CHIP 47	5%	1/16W		
C713	1-162-957-11	CERAMIC CHIP	220PF	5%	50V		FB607	1-500-445-21	FERRITE 0uH				
C714	1-162-957-11	CERAMIC CHIP	220PF	5%	50V		FB608	1-500-445-21	FERRITE 0uH				
C715	1-162-957-11	CERAMIC CHIP	220PF	5%	50V		FB609	1-500-445-21	FERRITE 0uH				
C716	1-162-957-11	CERAMIC CHIP	220PF	5%	50V				< IC >				
C717	1-164-156-11	CERAMIC CHIP	0.1uF		25V		IC601	8-759-698-76	IC CXD9617R				
C719	1-164-156-11	CERAMIC CHIP	0.1uF		25V		IC602	8-759-827-81	IC IS61LV6416-15T (T&R)				
C720	1-162-957-11	CERAMIC CHIP	220PF	5%	50V		IC603	8-759-238-47	IC TC74HCT7007AF (EL)				
C721	1-126-934-11	ELECT	220uF	20%	10V		IC604	8-759-825-15	IC LC89056W-E				
C722	1-164-156-11	CERAMIC CHIP	0.1uF		25V		IC605	8-759-657-47	IC AK4527				
C723	1-126-964-11	ELECT	10uF	20%	50V								
C724	1-164-156-11	CERAMIC CHIP	0.1uF		25V		IC606	8-759-825-13	IC PCM1748E/2K				
C725	1-126-964-11	ELECT	10uF	20%	50V		IC607	8-749-018-85	IC M61512FP				
C726	1-164-156-11	CERAMIC CHIP	0.1uF		25V		IC608	8-759-549-25	IC SN74LVU04APWR				
C727	1-126-964-11	ELECT	10uF	20%	50V		IC609	8-749-923-04	IC TOTX178A (OPTICAL OUT)				
C728	1-164-156-11	CERAMIC CHIP	0.1uF		25V		IC610	8-759-835-63	IC NJM2391DL1-26-TE1				
C729	1-126-964-11	ELECT	10uF	20%	50V				< JACK >				
C730	1-126-964-11	ELECT	10uF	20%	50V		J601	1-774-411-11	JACK, PIN 6P (VIDEO (AUDIO) IN, MD IN/OUT)				
C731	1-164-156-11	CERAMIC CHIP	0.1uF		25V		J602	1-774-785-11	JACK, PIN 1P (SUB WOOFER OUT)				
C732	1-164-156-11	CERAMIC CHIP	0.1uF		25V				< JUMPER RESISTOR >				
C733	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C734	1-164-156-11	CERAMIC CHIP	0.1uF		25V		JR601	1-216-864-11	METAL CHIP 0	5%	1/16W		
C735	1-164-156-11	CERAMIC CHIP	0.1uF		25V		JR603	1-216-864-11	METAL CHIP 0	5%	1/16W		
C736	1-164-156-11	CERAMIC CHIP	0.1uF		25V		JR620	1-216-864-11	METAL CHIP 0	5%	1/16W		
C738	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V		JR621	1-216-864-11	METAL CHIP 0	5%	1/16W		
C739	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V		JR622	1-216-864-11	METAL CHIP 0	5%	1/16W		
C740	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C741	1-164-156-11	CERAMIC CHIP	0.1uF		25V		JR630	1-216-864-11	METAL CHIP 0	5%	1/16W		
C742	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V								

DSP

Ref. No.	Part No.	Description	Remark		
< TRANSISTOR >					
Q601	8-729-801-93	TRANSISTOR	2SD1387		
Q602	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q603	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q604	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q605	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q606	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q607	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q608	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q609	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q610	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q611	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q612	8-729-113-69	TRANSISTOR	FN1F4M-M32		
Q613	8-729-113-14	TRANSISTOR	FA1A4M-T1L33		
< RESISTOR >					
R601	1-216-809-11	METAL CHIP	100	5%	1/16W
R602	1-216-813-11	METAL CHIP	220	5%	1/16W
R603	1-216-809-11	METAL CHIP	100	5%	1/16W
R604	1-216-809-11	METAL CHIP	100	5%	1/16W
R605	1-216-809-11	METAL CHIP	100	5%	1/16W
R606	1-216-809-11	METAL CHIP	100	5%	1/16W
R607	1-216-809-11	METAL CHIP	100	5%	1/16W
R608	1-216-809-11	METAL CHIP	100	5%	1/16W
R610	1-216-809-11	METAL CHIP	100	5%	1/16W
R611	1-216-809-11	METAL CHIP	100	5%	1/16W
R612	1-216-809-11	METAL CHIP	100	5%	1/16W
R613	1-216-809-11	METAL CHIP	100	5%	1/16W
R614	1-216-809-11	METAL CHIP	100	5%	1/16W
R615	1-216-809-11	METAL CHIP	100	5%	1/16W
R616	1-216-809-11	METAL CHIP	100	5%	1/16W
R617	1-216-809-11	METAL CHIP	100	5%	1/16W
R618	1-216-809-11	METAL CHIP	100	5%	1/16W
R619	1-216-809-11	METAL CHIP	100	5%	1/16W
R620	1-216-809-11	METAL CHIP	100	5%	1/16W
R621	1-216-809-11	METAL CHIP	100	5%	1/16W
R623	1-216-833-11	METAL CHIP	10K	5%	1/16W
R628	1-216-809-11	METAL CHIP	100	5%	1/16W
R629	1-216-809-11	METAL CHIP	100	5%	1/16W
R630	1-216-809-11	METAL CHIP	100	5%	1/16W
R631	1-216-809-11	METAL CHIP	100	5%	1/16W
R632	1-216-809-11	METAL CHIP	100	5%	1/16W
R633	1-216-809-11	METAL CHIP	100	5%	1/16W
R634	1-216-809-11	METAL CHIP	100	5%	1/16W
R635	1-216-809-11	METAL CHIP	100	5%	1/16W
R636	1-216-809-11	METAL CHIP	100	5%	1/16W
R637	1-216-809-11	METAL CHIP	100	5%	1/16W
R638	1-216-809-11	METAL CHIP	100	5%	1/16W
R639	1-216-809-11	METAL CHIP	100	5%	1/16W
R640	1-216-809-11	METAL CHIP	100	5%	1/16W
R641	1-216-809-11	METAL CHIP	100	5%	1/16W
R642	1-216-809-11	METAL CHIP	100	5%	1/16W
R643	1-216-815-11	METAL CHIP	330	5%	1/16W
R644	1-216-815-11	METAL CHIP	330	5%	1/16W
R645	1-216-815-11	METAL CHIP	330	5%	1/16W
R646	1-216-815-11	METAL CHIP	330	5%	1/16W
R647	1-216-815-11	METAL CHIP	330	5%	1/16W

Ref. No.	Part No.	Description	Remark		
R648	1-216-815-11	METAL CHIP	330	5%	1/16W
R649	1-216-817-11	METAL CHIP	470	5%	1/16W
R650	1-216-817-11	METAL CHIP	470	5%	1/16W
R651	1-216-817-11	METAL CHIP	470	5%	1/16W
R652	1-216-817-11	METAL CHIP	470	5%	1/16W
R656	1-216-833-11	METAL CHIP	10K	5%	1/16W
R657	1-216-809-11	METAL CHIP	100	5%	1/16W
R658	1-216-809-11	METAL CHIP	100	5%	1/16W
R659	1-216-809-11	METAL CHIP	100	5%	1/16W
R660	1-216-815-11	METAL CHIP	330	5%	1/16W
R661	1-216-815-11	METAL CHIP	330	5%	1/16W
R662	1-216-809-11	METAL CHIP	100	5%	1/16W
R663	1-216-817-11	METAL CHIP	470	5%	1/16W
R664	1-216-809-11	METAL CHIP	100	5%	1/16W
R665	1-216-809-11	METAL CHIP	100	5%	1/16W
R666	1-216-809-11	METAL CHIP	100	5%	1/16W
R667	1-216-809-11	METAL CHIP	100	5%	1/16W
R668	1-216-809-11	METAL CHIP	100	5%	1/16W
R669	1-216-809-11	METAL CHIP	100	5%	1/16W
R670	1-216-809-11	METAL CHIP	100	5%	1/16W
R671	1-216-809-11	METAL CHIP	100	5%	1/16W
R672	1-216-809-11	METAL CHIP	100	5%	1/16W
R673	1-216-809-11	METAL CHIP	100	5%	1/16W
R674	1-216-809-11	METAL CHIP	100	5%	1/16W
R675	1-216-809-11	METAL CHIP	100	5%	1/16W
R676	1-216-809-11	METAL CHIP	100	5%	1/16W
R677	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R678	1-216-833-11	METAL CHIP	10K	5%	1/16W
R679	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R680	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R681	1-216-839-11	METAL CHIP	33K	5%	1/16W
R682	1-216-809-11	METAL CHIP	100	5%	1/16W
R683	1-216-809-11	METAL CHIP	100	5%	1/16W
R684	1-216-809-11	METAL CHIP	100	5%	1/16W
R685	1-216-809-11	METAL CHIP	100	5%	1/16W
R686	1-216-809-11	METAL CHIP	100	5%	1/16W
R687	1-216-809-11	METAL CHIP	100	5%	1/16W
R688	1-216-809-11	METAL CHIP	100	5%	1/16W
R689	1-216-821-11	METAL CHIP	1K	5%	1/16W
R690	1-216-857-11	METAL CHIP	1M	5%	1/16W
R691	1-216-815-11	METAL CHIP	330	5%	1/16W
R692	1-216-809-11	METAL CHIP	100	5%	1/16W
R693	1-216-821-11	METAL CHIP	1K	5%	1/16W
R694	1-216-821-11	METAL CHIP	1K	5%	1/16W
R695	1-216-809-11	METAL CHIP	100	5%	1/16W
R696	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R697	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R698	1-216-853-11	METAL CHIP	470K	5%	1/16W
R699	1-216-853-11	METAL CHIP	470K	5%	1/16W
R700	1-216-833-11	METAL CHIP	10K	5%	1/16W
R701	1-216-833-11	METAL CHIP	10K	5%	1/16W
R702	1-216-857-11	METAL CHIP	1M	5%	1/16W
R703	1-216-857-11	METAL CHIP	1M	5%	1/16W
R704	1-216-845-11	METAL CHIP	100K	5%	1/16W
R705	1-216-845-11	METAL CHIP	100K	5%	1/16W
R706	1-216-841-11	METAL CHIP	47K	5%	1/16W
R707	1-216-841-11	METAL CHIP	47K	5%	1/16W

DSP

MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R709	1-216-864-11	METAL CHIP	0	5%	1/16W								
R711	1-216-821-11	METAL CHIP	1K	5%	1/16W		R780	1-216-841-11	METAL CHIP	47K	5%	1/16W	
							R781	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R712	1-216-841-11	METAL CHIP	47K	5%	1/16W								
R713	1-216-821-11	METAL CHIP	1K	5%	1/16W				< VIBRATOR >				
R715	1-216-821-11	METAL CHIP	1K	5%	1/16W								
R716	1-216-841-11	METAL CHIP	47K	5%	1/16W		X601	1-579-993-21	VIBRATOR, CERAMIC (13.5MHz)				
R717	1-216-821-11	METAL CHIP	1K	5%	1/16W		*****						
R719	1-216-821-11	METAL CHIP	1K	5%	1/16W			A-4727-046-A	MAIN BOARD, COMPLETE (TH)				
R720	1-216-841-11	METAL CHIP	47K	5%	1/16W			A-4727-047-A	MAIN BOARD, COMPLETE (AEP, UK)				
R721	1-216-821-11	METAL CHIP	1K	5%	1/16W			A-4727-049-A	MAIN BOARD, COMPLETE (E, MX)				
R723	1-216-821-11	METAL CHIP	1K	5%	1/16W			A-4727-053-A	MAIN BOARD, COMPLETE (EA)				
R724	1-216-841-11	METAL CHIP	47K	5%	1/16W			A-4727-275-A	MAIN BOARD, COMPLETE (AUS, KR, SP)				

R725	1-216-821-11	METAL CHIP	1K	5%	1/16W								
R727	1-216-821-11	METAL CHIP	1K	5%	1/16W			7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				
R728	1-216-841-11	METAL CHIP	47K	5%	1/16W								
R729	1-216-821-11	METAL CHIP	1K	5%	1/16W								
R730	1-216-837-11	METAL CHIP	22K	5%	1/16W				< CAPACITOR >				
							C501	1-162-205-31	CERAMIC	18PF	5%	50V	
R731	1-216-829-11	METAL CHIP	4.7K	5%	1/16W		C502	1-162-203-31	CERAMIC	15PF	5%	50V	
R733	1-216-821-11	METAL CHIP	1K	5%	1/16W		C503	1-164-159-11	CERAMIC	0.1uF		50V	
R734	1-216-821-11	METAL CHIP	1K	5%	1/16W		C504	1-164-159-11	CERAMIC	0.1uF		50V	
R735	1-216-821-11	METAL CHIP	1K	5%	1/16W		C505	1-104-656-11	ELECT	2200uF	20%	6.3V	
R738	1-216-821-11	METAL CHIP	1K	5%	1/16W								
							C506	1-126-963-11	ELECT	4.7uF	20%	50V	
R739	1-216-835-11	METAL CHIP	15K	5%	1/16W		C508	1-126-964-11	ELECT	10uF	20%	50V	
R742	1-216-835-11	METAL CHIP	15K	5%	1/16W		C509	1-164-159-11	CERAMIC	0.1uF		50V	
R743	1-216-833-11	METAL CHIP	10K	5%	1/16W		C510	1-126-963-11	ELECT	4.7uF	20%	50V	
R746	1-216-833-11	METAL CHIP	10K	5%	1/16W		C551	1-126-964-11	ELECT	10uF	20%	50V	
R747	1-216-845-11	METAL CHIP	100K	5%	1/16W								
							C552	1-164-159-11	CERAMIC	0.1uF		50V	
R748	1-216-845-11	METAL CHIP	100K	5%	1/16W		C553	1-164-159-11	CERAMIC	0.1uF		50V	
R749	1-216-834-11	METAL CHIP	12K	5%	1/16W		C561	1-164-159-11	CERAMIC	0.1uF		50V	
R750	1-216-834-11	METAL CHIP	12K	5%	1/16W		C562	1-162-306-11	CERAMIC	0.01uF	30%	16V	
R751	1-216-841-11	METAL CHIP	47K	5%	1/16W		C902	1-126-935-11	ELECT	470uF	20%	10V	
R752	1-216-841-11	METAL CHIP	47K	5%	1/16W								
							C903	1-126-964-11	ELECT	10uF	20%	50V	
R754	1-216-809-11	METAL CHIP	100	5%	1/16W		C904	1-126-936-11	ELECT	3300uF	20%	16V	
R755	1-216-809-11	METAL CHIP	100	5%	1/16W		C905	1-126-935-11	ELECT	470uF	20%	16V	
R756	1-216-841-11	METAL CHIP	47K	5%	1/16W		C906	1-164-159-11	CERAMIC	0.1uF		50V	
R757	1-216-841-11	METAL CHIP	47K	5%	1/16W		C907	1-126-934-11	ELECT	220uF	20%	10V	
R758	1-216-821-11	METAL CHIP	1K	5%	1/16W								
							C909	1-126-968-11	ELECT	100uF	20%	50V	
R759	1-216-821-11	METAL CHIP	1K	5%	1/16W		C910	1-126-964-11	ELECT	10uF	20%	50V	
R760	1-216-821-11	METAL CHIP	1K	5%	1/16W		C915	1-126-948-11	ELECT	100uF	20%	35V	
R761	1-216-821-11	METAL CHIP	1K	5%	1/16W		C916	1-162-306-11	CERAMIC	0.01uF	30%	16V	
R762	1-216-821-11	METAL CHIP	1K	5%	1/16W		C918	1-126-935-11	ELECT	470uF	20%	10V	
R763	1-216-821-11	METAL CHIP	1K	5%	1/16W								
							C919	1-164-159-11	CERAMIC	0.1uF		50V	
R765	1-216-821-11	METAL CHIP	1K	5%	1/16W		C927	1-161-494-00	CERAMIC	0.022uF		25V	
R766	1-216-821-11	METAL CHIP	1K	5%	1/16W		C928	1-161-494-00	CERAMIC	0.022uF		25V	
R767	1-216-821-11	METAL CHIP	1K	5%	1/16W		C937	1-164-159-11	CERAMIC	0.1uF		50V	
R768	1-216-833-11	METAL CHIP	10K	5%	1/16W		C941	1-126-964-11	ELECT	10uF	20%	50V	
R769	1-216-821-11	METAL CHIP	1K	5%	1/16W								
							C942	1-126-935-11	ELECT	470uF	20%	6.3V	
R770	1-216-821-11	METAL CHIP	1K	5%	1/16W		C943	1-164-159-11	CERAMIC	0.1uF		50V	
R771	1-216-833-11	METAL CHIP	10K	5%	1/16W		C952	1-128-548-11	ELECT	4700uF	20%	25V	
R772	1-216-821-11	METAL CHIP	1K	5%	1/16W		C953	1-164-159-11	CERAMIC	0.1uF		50V	
R773	1-216-821-11	METAL CHIP	1K	5%	1/16W		C955	1-162-306-11	CERAMIC	0.01uF	30%	16V	
R774	1-216-821-11	METAL CHIP	1K	5%	1/16W								
							C956	1-126-964-11	ELECT	10uF	20%	50V	
R775	1-216-833-11	METAL CHIP	10K	5%	1/16W		C957	1-162-306-11	CERAMIC	0.01uF	30%	16V	
R776	1-216-833-11	METAL CHIP	10K	5%	1/16W		C961	1-164-159-11	CERAMIC	0.1uF		50V	
R777	1-216-833-11	METAL CHIP	10K	5%	1/16W		C962	1-126-964-11	ELECT	10uF	20%	50V	
R778	1-216-821-11	METAL CHIP	1K	5%	1/16W		C964	1-164-159-11	CERAMIC	0.1uF		50V	
					(EXCEPT AEP, UK)								
R779	1-216-841-11	METAL CHIP	47K	5%	1/16W		C966	1-162-306-11	CERAMIC	0.01uF	30%	16V	

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark					
C968	1-162-306-11	CERAMIC	0.01uF	30%	16V	IC953	8-759-684-00	IC BA8274K						
C970	1-162-306-11	CERAMIC	0.01uF	30%	16V	IC991	8-759-701-79	IC NJM7812FA						
C971	1-164-159-11	CERAMIC	0.1uF		50V									
C972	1-164-159-11	CERAMIC	0.1uF		50V	< COIL >								
C977	1-126-964-11	ELECT	10uF	20%	50V	L14	1-408-080-00	INDUCTOR	100uH					
C978	1-126-964-11	ELECT	10uF	20%	50V	L951	1-410-525-11	INDUCTOR	220uH					
C993	1-126-964-11	ELECT	10uF	20%	50V	L955	1-410-682-31	INDUCTOR	470uH					
C994	1-126-964-11	ELECT	10uF	20%	50V	< TRANSISTOR >								
< CONNECTOR >						Q502	8-729-422-57	TRANSISTOR	UN4111					
CN501	1-506-469-11	PIN, CONNECTOR 4P				Q503	8-729-422-57	TRANSISTOR	UN4111					
CN502	1-784-780-11	CONNECTOR, FFC 19P				Q551	8-729-620-05	TRANSISTOR	2SC2603-EF					
* CN503	1-568-937-11	PIN, CONNECTOR 10P				Q901	8-729-140-97	TRANSISTOR	2SB734-34					
* CN505	1-569-624-11	SOCKET, CONNECTOR 17P	(SYSTEM CONTROL 3)			Q902	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2					
CN506	1-784-776-11	CONNECTOR, FFC 15P (AEP, UK)				< RESISTOR >								
CN506	1-568-830-11	CONNECTOR, FFC 11P (EXCEPT AEP, UK)				R44	1-247-807-31	CARBON	100	5%	1/4W			
CN508	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P				R92	1-247-807-31	CARBON	100	5%	1/4W			
CN509	1-779-289-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P				R501	1-247-807-31	CARBON	100	5%	1/4W			
CN510	1-794-569-11	PIN, CONNECTOR 5P				R502	1-247-807-31	CARBON	100	5%	1/4W			
CN5031	1-794-569-11	PIN, CONNECTOR 5P				R503	1-247-807-31	CARBON	100	5%	1/4W			
CN5032	1-691-907-11	PIN, CONNECTOR 15P				R504	1-247-807-31	CARBON	100	5%	1/4W			
CN5041	1-580-176-11	PIN, CONNECTOR 10P				R505	1-247-807-31	CARBON	100	5%	1/4W			
* CN5042	1-568-419-11	PIN, CONNECTOR 9P	< DIODE >			R506	1-247-807-31	CARBON	100	5%	1/4W			
						R507	1-247-807-31	CARBON	100	5%	1/4W			
D551	8-719-911-19	DIODE 1SS199-25				R508	1-249-429-11	CARBON	10K	5%	1/4W			
D552	8-719-911-19	DIODE 1SS199-25				R509	1-247-891-00	CARBON	330K	5%	1/4W			
D901	8-719-500-56	DIODE D3SBA20				R510	1-249-411-11	CARBON	330	5%	1/4W			
D902	8-719-024-99	DIODE 11ES2-NTA2B (AEP, UK)				R511	1-249-429-11	CARBON	10K	5%	1/4W			
D903	8-719-024-99	DIODE 11ES2-NTA2B				R512	1-247-807-31	CARBON	100	5%	1/4W			
D904	8-719-024-99	DIODE 11ES2-NTA2B				R513	1-247-807-31	CARBON	100	5%	1/4W			
D911	8-719-024-99	DIODE 11ES2-NTA2B				R514	1-247-807-31	CARBON	100	5%	1/4W			
D912	8-719-110-72	DIODE RDS30ESB2				R515	1-249-417-11	CARBON	1K	5%	1/4W			
D913	8-719-109-89	DIODE RDS5.6ESB2				R516	1-247-807-31	CARBON	100	5%	1/4W			
D920	8-719-024-99	DIODE 11ES2-NTA2B				R517	1-247-807-31	CARBON	100	5%	1/4W			
D921	8-719-911-19	DIODE 1SS199-25				R518	1-247-807-31	CARBON	100	5%	1/4W			
D922	8-719-024-99	DIODE 11ES2-NTA2B				R519	1-249-429-11	CARBON	10K	5%	1/4W			
D923	8-719-024-99	DIODE 11ES2-NTA2B				R520	1-249-429-11	CARBON	10K	5%	1/4W			
D924	8-719-050-84	DIODE RB441Q-40T-77				R521	1-247-807-31	CARBON	100	5%	1/4W			
D941	8-719-911-19	DIODE 1SS199-25				R522	1-249-429-11	CARBON	10K	5%	1/4W			
D942	8-719-911-19	DIODE 1SS199-25				R523	1-247-807-31	CARBON	100	5%	1/4W			
D943	8-719-911-19	DIODE 1SS199-25				R524	1-249-437-11	CARBON	47K	5%	1/4W			
D944	8-719-911-19	DIODE 1SS199-25				R525	1-247-807-31	CARBON	100	5%	1/4W			
D945	8-719-911-19	DIODE 1SS199-25	< GROUND TERMINAL >			R526	1-247-807-31	CARBON	100	5%	1/4W			
						R527	1-247-807-31	CARBON	100	5%	1/4W			
EPT901	1-537-770-21	TERMINAL BOARD, GROUND				R528	1-247-807-31	CARBON	100	5%	1/4W			
EPT902	1-537-770-21	TERMINAL BOARD, GROUND	< IC >			R529	1-247-807-31	CARBON	100	5%	1/4W			
						R530	1-247-807-31	CARBON	100	5%	1/4W			
IC501	6-801-211-01	IC M30622MGA-A77FP				R531	1-247-807-31	CARBON	100	5%	1/4W			
IC551	8-759-635-63	IC M51943BSL				R532	1-249-437-11	CARBON	47K	5%	1/4W			
IC901	8-759-158-62	IC TA78057S				R533	1-247-807-31	CARBON	100	5%	1/4W			
IC903	8-759-473-41	IC BA10T				R534	1-247-807-31	CARBON	100	5%	1/4W			
IC904	8-759-039-69	IC uPC7805AHF				R535	1-247-807-31	CARBON	100	5%	1/4W			
IC951	8-749-923-05	IC TORX178B (OPTICAL IN)				R536	1-247-807-31	CARBON	100	5%	1/4W			
IC952	8-749-923-05	IC TORX178B (OPTICAL IN)				R537	1-247-807-31	CARBON	100	5%	1/4W			
						R538	1-247-807-31	CARBON	100	5%	1/4W			
						R539	1-247-807-31	CARBON	100	5%	1/4W			
						R540	1-247-807-31	CARBON	100	5%	1/4W			

MAIN

PANEL

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark			
R541	1-249-437-11	CARBON	47K	5%	1/4W		4-949-935-41	CUSHION (FL)				
R542	1-249-437-11	CARBON	47K	5%	1/4W							
R543	1-249-415-11	CARBON	680	5%	1/4W			< CAPACITOR >				
R544	1-249-425-11	CARBON	4.7K	5%	1/4W	C601	1-162-306-11	CERAMIC	0.01uF	30%	16V	
R545	1-249-417-11	CARBON	1K	5%	1/4W	C603	1-164-159-11	CERAMIC	0.1uF		50V	
					(E, MX)	C605	1-162-306-11	CERAMIC	0.01uF	30%	16V	
R545	1-249-425-11	CARBON	4.7K	5%	1/4W	C606	1-124-261-00	ELECT	10uF	20%	50V	
					(AUS, EA, KR, SP, TH)	C607	1-126-382-11	ELECT	100uF	20%	6.3V	
R545	1-249-429-11	CARBON	10K	5%	1/4W							
					(AEP, UK)	C608	1-164-159-11	CERAMIC	0.1uF		50V	
R546	1-249-407-11	CARBON	150	5%	1/4W	C610	1-124-261-00	ELECT	10uF	20%	50V	
					(AUS, KR, SP, TH)	C614	1-162-286-31	CERAMIC	220PF	10%	50V	
						C615	1-162-286-31	CERAMIC	220PF	10%	50V	
R546	1-249-417-11	CARBON	1K	5%	1/4W	C649	1-162-306-11	CERAMIC	0.01uF	30%	16V	
					(EA)							
R546	1-249-425-11	CARBON	4.7K	5%	1/4W	C650	1-162-306-11	CERAMIC	0.01uF	30%	16V	
					(E, MX)	C651	1-162-282-31	CERAMIC	100PF	10%	50V	
R548	1-249-425-11	CARBON	4.7K	5%	1/4W	C652	1-162-282-31	CERAMIC	100PF	10%	50V	
R549	1-247-843-11	CARBON	3.3K	5%	1/4W	C653	1-162-282-31	CERAMIC	100PF	10%	50V	
R550	1-249-441-11	CARBON	100K	5%	1/4W	C654	1-162-282-31	CERAMIC	100PF	10%	50V	
R551	1-249-413-11	CARBON	470	5%	1/4W	C655	1-162-282-31	CERAMIC	100PF	10%	50V	
R552	1-249-429-11	CARBON	10K	5%	1/4W	C656	1-162-282-31	CERAMIC	100PF	10%	50V	
R553	1-249-437-11	CARBON	47K	5%	1/4W	C657	1-162-282-31	CERAMIC	100PF	10%	50V	
R554	1-249-437-11	CARBON	47K	5%	1/4W	C658	1-162-282-31	CERAMIC	100PF	10%	50V	
R555	1-249-425-11	CARBON	4.7K	5%	1/4W	C659	1-162-282-31	CERAMIC	100PF	10%	50V	
R556	1-249-437-11	CARBON	47K	5%	1/4W	C660	1-162-282-31	CERAMIC	100PF	10%	50V	
R557	1-249-433-11	CARBON	22K	5%	1/4W	C661	1-162-282-31	CERAMIC	100PF	10%	50V	
R558	1-247-903-00	CARBON	1M	5%	1/4W	C662	1-162-282-31	CERAMIC	100PF	10%	50V	
△ R903	1-219-153-11	FUSIBLE	10	5%	1/4W	F	C663	1-162-306-11	CERAMIC	0.01uF	30%	16V
R904	1-249-429-11	CARBON	10K	5%	1/4W		C664	1-164-159-11	CERAMIC	0.1uF		50V
R905	1-247-807-31	CARBON	100	5%	1/4W		C665	1-119-943-91	ELECT	47uF	20%	50V
R906	1-247-807-31	CARBON	100	5%	1/4W		C666	1-119-943-91	ELECT	47uF	20%	50V
R908	1-249-417-11	CARBON	1K	5%	1/4W		C667	1-164-159-11	CERAMIC	0.1uF		50V
R911	1-249-409-11	CARBON	220	5%	1/4W		C668	1-164-159-11	CERAMIC	0.1uF		50V
R912	1-249-442-11	CARBON	510	5%	1/4W		C669	1-164-159-11	CERAMIC	0.1uF		50V
R941	1-249-417-11	CARBON	1K	5%	1/4W			< CONNECTOR >				
R942	1-249-417-11	CARBON	1K	5%	1/4W							
R943	1-247-843-11	CARBON	3.3K	5%	1/4W	CN602	1-784-741-11	CONNECTOR, FFC 19P				
R951	1-249-413-11	CARBON	470	5%	1/4W			< DIODE >				
R952	1-249-413-11	CARBON	470	5%	1/4W							
R956	1-247-807-31	CARBON	100	5%	1/4W	D601	8-719-911-19	DIODE 1SS199-25				
R957	1-247-807-31	CARBON	100	5%	1/4W			< FLUORESCENT INDICATOR TUBE >				
R958	1-247-807-31	CARBON	100	5%	1/4W							
R959	1-247-807-31	CARBON	100	5%	1/4W							
R961	1-249-421-11	CARBON	2.2K	5%	1/4W	FL601	1-518-744-11	INDICATOR TUBE, FLUORESCENT				
R962	1-249-421-11	CARBON	2.2K	5%	1/4W			< IC >				
R963	1-249-426-11	CARBON	5.6K	5%	1/4W	IC601	6-800-722-01	IC MB90M407PF-G-109-BND				
R964	1-249-426-11	CARBON	5.6K	5%	1/4W			< RESISTOR >				
< VIBRATOR >						< RESISTOR >						
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)				R601	1-249-429-11	CARBON	10K	5%	1/4W	
X502	1-781-107-21	VIBRATOR, SERAMIC (16MHz)				R602	1-249-429-11	CARBON	10K	5%	1/4W	
*****						R603	1-249-429-11	CARBON	10K	5%	1/4W	
	A-4727-699-A	PANEL BOARD, COMPLETE (AEP, UK)				R604	1-247-807-31	CARBON	100	5%	1/4W	
	A-4727-701-A	PANEL BOARD, COMPLETE (TH)				R605	1-247-807-31	CARBON	100	5%	1/4W	
	A-4727-702-A	PANEL BOARD, COMPLETE										
		(AUS, EA, E, KR, MX, SP)				R606	1-249-429-11	CARBON	10K	5%	1/4W	
		*****				R607	1-249-429-11	CARBON	10K	5%	1/4W	
						R608	1-249-429-11	CARBON	10K	5%	1/4W	
						R616	1-249-441-11	CARBON	100K	5%	1/4W	
	4-232-328-01	HOLDER, FL TUBE				R617	1-249-410-11	CARBON	270	5%	1/4W	

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

PANEL

SIRCS

Ref. No.	Part No.	Description	Remark			
R618	1-249-413-11	CARBON	470	5%	1/4W	
R619	1-249-414-11	CARBON	560	5%	1/4W	
R620	1-249-416-11	CARBON	820	5%	1/4W	
R621	1-249-417-11	CARBON	1K	5%	1/4W	
R622	1-249-418-11	CARBON	1.2K	5%	1/4W	
R623	1-249-419-11	CARBON	1.5K	5%	1/4W	
R624	1-249-421-11	CARBON	2.2K	5%	1/4W	
R625	1-249-422-11	CARBON	2.7K	5%	1/4W	
R626	1-249-424-11	CARBON	3.9K	5%	1/4W	
R627	1-249-426-11	CARBON	5.6K	5%	1/4W	(AEP, UK)
R628	1-249-429-11	CARBON	10K	5%	1/4W	
R629	1-249-417-11	CARBON	1K	5%	1/4W	
R630	1-249-429-11	CARBON	10K	5%	1/4W	
R631	1-249-417-11	CARBON	1K	5%	1/4W	
R632	1-249-429-11	CARBON	10K	5%	1/4W	
R633	1-249-417-11	CARBON	1K	5%	1/4W	
R634	1-249-429-11	CARBON	10K	5%	1/4W	
R635	1-249-417-11	CARBON	1K	5%	1/4W	
R636	1-249-429-11	CARBON	10K	5%	1/4W	
R637	1-249-417-11	CARBON	1K	5%	1/4W	
R638	1-249-429-11	CARBON	10K	5%	1/4W	
R639	1-249-417-11	CARBON	1K	5%	1/4W	
R677	1-249-417-11	CARBON	1K	5%	1/4W	
< SWITCH >						
S601	1-771-410-21	SWITCH, TACTILE (DISPLAY)				
S602	1-771-410-21	SWITCH, TACTILE (CLOCK/TIMER)				
S603	1-771-410-21	SWITCH, TACTILE (TIME SELECT)				
S604	1-771-410-21	SWITCH, TACTILE (TUNER/BAND)				
S605	1-771-410-21	SWITCH, TACTILE (TUNING +)				
S606	1-771-410-21	SWITCH, TACTILE (TUNING -)				
S607	1-771-410-21	SWITCH, TACTILE (ENTER)				
S608	1-771-410-21	SWITCH, TACTILE (PRESET -)				
S609	1-771-410-21	SWITCH, TACTILE (PRESET +)				
S610	1-771-410-21	SWITCH, TACTILE (TUNER MEMORY)				
S611	1-771-410-21	SWITCH, TACTILE (STEREO/MONO)				
S612	1-771-410-21	SWITCH, TACTILE (PTY) (AEP, UK)				
< VIBRATOR >						
X601	1-577-358-21	VIBRATOR, CERAMIC (4MHz)				

	1-680-697-11	SIRCS BOARD				

< CAPACITOR >						
C101	1-124-589-11	ELECT	47uF	20%	16V	
< IC >						
IC101	8-749-011-05	IC GP1U28X (REMOTE CONTROL RECEIVER)				
< RESISTOR >						
R101	1-249-401-11	CARBON	47	5%	1/4W	
R102	1-249-401-11	CARBON	47	5%	1/4W	

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			

2	1-773-114-11	WIRE (FLAT TYPE) (19 CORE)	
54	1-757-599-11	WIRE (FLAT TYPE) (21 CORE)	
55	1-757-600-11	WIRE (FLAT TYPE) (23 CORE)	
56	1-757-629-11	CORD (WITH CONNECTOR) 5P	
57	1-757-631-11	CORD (WITH CONNECTOR) 20P	
58	1-757-630-11	CORD (WITH CONNECTOR) 19P	
60	1-769-940-11	WIRE (FLAT TYPE) (11 CORE)	(AUS, EA, E, KR, MX, SP, TH)
60	1-773-004-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK)	
61	1-693-529-11	TUNER (FM/AM) (AEP, UK)	
61	1-693-531-71	TUNER (FM/AM) (AUS, EA, E, MX, SP, TH)	
61	1-693-538-11	TUNER (FM/AM) (KR)	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

[illegible]