

TA-SP55

SERVICE MANUAL

AEP Model
UK Model
E Model



TA-SP55 is the amplifier section
in CMT-SP55MD or CMT-SP55TC.

This stereo system is equipped with the Dolby* B-type noise reduction system.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol are trademarks of the Dolby Laboratories Licensing Corporation.

SPECIFICATIONS

European model:

DIN power output (Rated): 25 + 25 watts (8 ohms at 1 kHz,
DIN, 230 V)

Continuous RMS power output (Reference):

30 + 30 watts (8 ohms at 1 kHz,
10% THD, 230 V)

Music power output (Reference):

75 + 75 watts

General

Power requirements

European model: 230 V AC, 50/60 Hz

Other models: 110 – 120 V or 220 – 240 V

AC, 50/60 Hz

Power consumption

70 watts

Dimensions (w/h/d)

Approx. 202 x 101 x 306 mm

Mass

Approx. 3.9 kg

Other models:

DIN power output (Rated): 25 + 25 watts (8 ohms at 1 kHz,
DIN, 240 V)

22 + 22 watts (8 ohms at 1 kHz,
DIN, 220 V)

Continuous RMS power output (Reference):

30 + 30 watts (8 ohms at 1 kHz,
10% THD, 240 V)

28 + 28 watts (8 ohms at 1 kHz,
10% THD, 220 V)

Output

PHONES (stereo phono jack):

accepts headphones of 8 ohms or
more.

Design and specifications are subject to change
without notice.

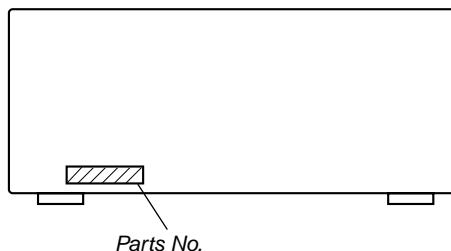
MICRO Hi-Fi COMPONENT SYSTEM

SONY®

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MODEL IDENTIFICATION



MODEL	PARTS No.
AEP, AED, UK model	4-229-700-0□
MY, SP model	4-229-700-2□
HK model	4-229-700-3□
KR model	4-229-700-4□

- Abbreviation

- AED : North European model
- MY : Malaysia model
- SP : Singapore model
- HK : Hong Kong model
- KR : Korea model

SAFETY-RELATED COMPONENT WARNING !!

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

SECTION 1

SERVICING NOTE

This unit cannot be repaired by itself.

When repairing, connect the whole system except for the speaker.

CD Text Display

- This unit displays CD text.

Text is displayed for the first 50 track only and will not be displayed from the 51st track onwards. Do not suspect a fault in this case.

In some cases, some special characters will not be displayed and may be replaced by other characters. Do not suspect a fault in this case.

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. When the power ON, press the **I/O** button (TA) while pressing the **TUNING MODE** button (ST) and **>>>>** buttons (CDP) together.
2. "COLD RESET" is displayed on the fluorescent indicator tube and reset is executed.

Hot Reset

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

Procedure :

1. When the power ON, press the **I/O** button (TA) while pressing the **TUNING MODE** button (ST) and **<<<<** buttons (CDP) together.
2. Turn off the unit and reset is executed.

GC Test Mode

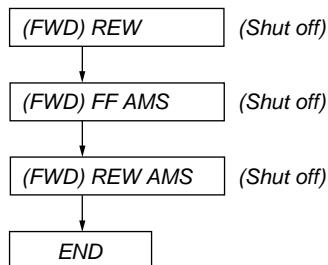
Procedure :

1. When the power ON, press the **I/O** button (TA) while pressing the **TUNING MODE** button (ST) and **PLAY MODE** buttons (CDP) together.
2. Fluorescent indicator tube are all turned on.
3. Press **TUNING MODE** button (ST) to enter the model destination indecation mode. "SP55 CE2" appears.
4. Every pressing of **TUNING MODE** button (ST) changes the display in the following order.
MC Version → CD Version → ST Version → TC Version → TA Version → TM Version → model destination display.
5. Press **DISPLAY** button (ST) and the date appears as "00615a"
Every pressing of **DISPLAY** button (ST) changes the display in the Version display and model destination display.
6. Press **TUNER/BAND** button (ST) to enter the key check mode.
7. In the key check mode, the fluorescent indicator tube displays "Key 0 Vol 0". Each time a button is pressed, "Key" value increases. However, once a button is pressed, it is no longer taken into account.
"Vol" Value increases like "1, 2, 3 ..." if rotating **VOLUME** knob (TA) in the clockwise direction, or decreases like "0, 9, 8 ..." if rotating in the counterclockwise direction.
8. To exit from this mode, press three buttons in the same procedure as step 1, or disconnect the power cord.

MC Test Mode

Procedure :

1. When the power ON, press the **I/O** button (TA) while pressing **TUNING MODE** button (ST) and **REPEAT** button (CDP) together.
2. Frame of the MD mark and the CD mark flash, and "BASS/TRE FLAT" appears for a moment.
3. When the **VOLUME** knob (TA) is turned clockwise, "VOLUME MAX" appears for a moment.
4. When the **VOLUME** knob (TA) is turned counterclockwise, "VOLUME MIN" appears for a moment.
5. Select the function "TAPE" using the **FUNCTION** knob (TA).
Set the test tape AMS-110A or AMS-120.
6. Press **DIRECTION** button (TC) to enter either "↔" (loop) or "↔" (two way).
7. Press the **CD SYNC REC** button (TC) to start the AMS test.

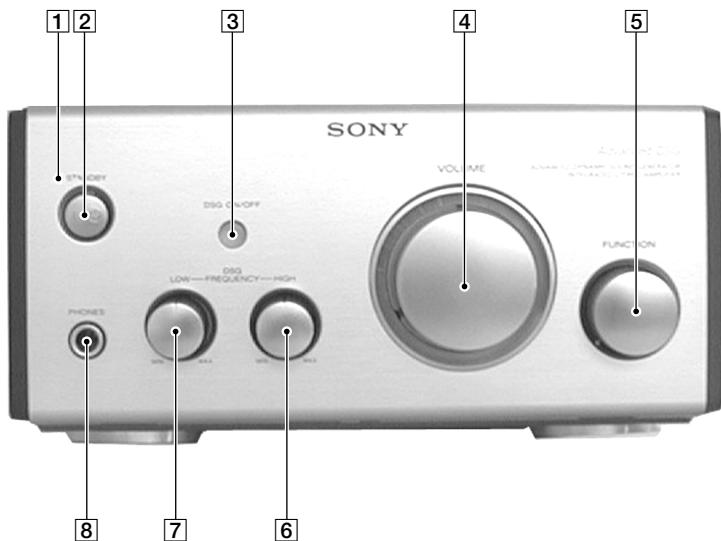


8. Number of AMS signals is counted during the AMS test and the message "EDG#" (# means a number) appears. When the test tape either AMS-110A or AMS-120 is used, the AMS signal is detected twice before shut off.
9. When the AMS test ends, either "OK" or "NG" appears.
10. To exit the MC test mode, either press the **I/O** button (TA) or perform the cold reset as described above.

SECTION 2 GENERAL

This section is extracted from instruction manual.

FRONT PANEL



- [1] STANDBY indicator
[2] I/O button
[3] DSG ON/OFF button and indicator
[4] VOLUME knob
[5] FUNCTION knob
[6] DSG FREQUENCY HIGH knob
[7] DSG FREQUENCY LOW knob
[8] PHONES jack

- 2** Press \blacktriangleleft or \triangleright to set the hour, then press ENTER/YES.
The minute indication flashes.



- 3** Press \blacktriangleleft or \triangleright to set the minute, then press ENTER/YES.
The clock starts.

If you made a mistake

Start over from step 1.

To change the preset time

You can change the preset time while the system is on.

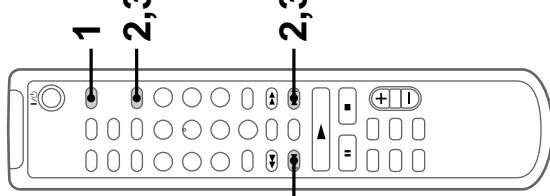
- 1 Press CLOCK/TIMER SET.
- 2 Press \blacktriangleleft or \triangleright repeatedly until "SET CLOCK" appears, then press ENTER/YES.
- 3 Repeat steps 2 and 3.

Tips

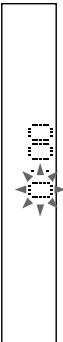
- The built-in clock shows the time in the display while the system is off. If you press DISPLAY at this time, the display back light lights up, making the clock easier to see.
- The upper dot of the colon flashes for the first 30 seconds, and the lower dot flashes for the last 30 seconds of each minute.

Step 2: Setting the time

You must set the time beforehand to use the timer functions.
The clock is on a 24-hour system for the European model, and a 12-hour system for other models.
The 24-hour system is used for illustration purposes.
Set the time before turning on the system.



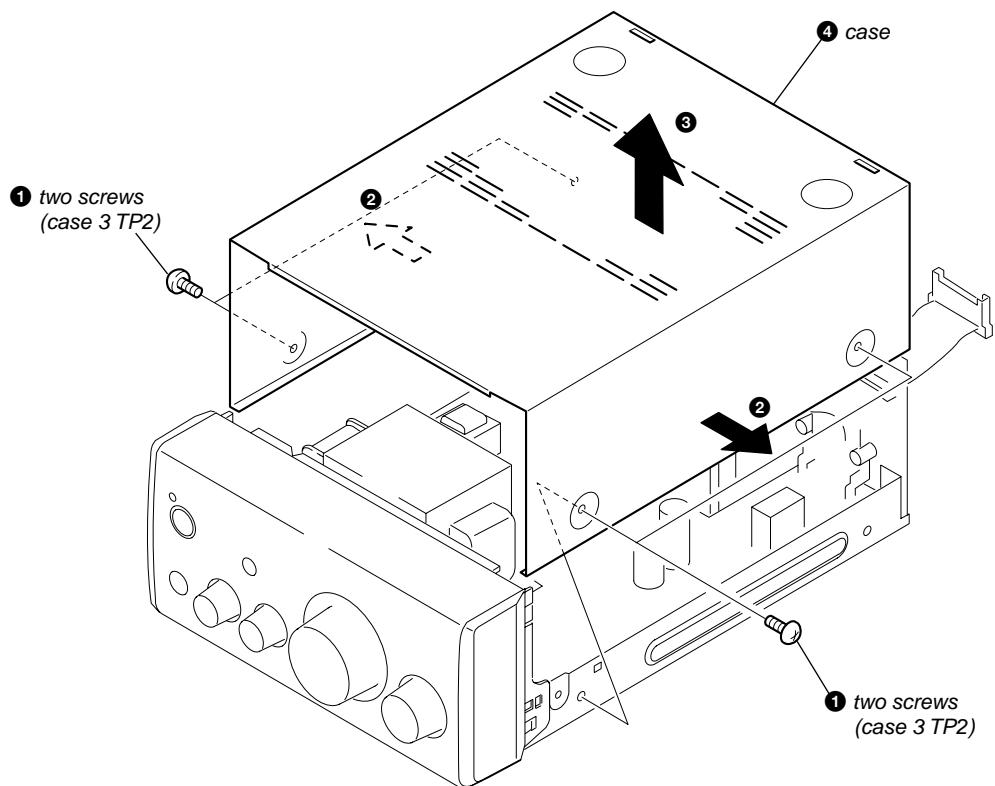
- 1** Press CLOCK/TIMER SET while the system is off.
The hour indication flashes.



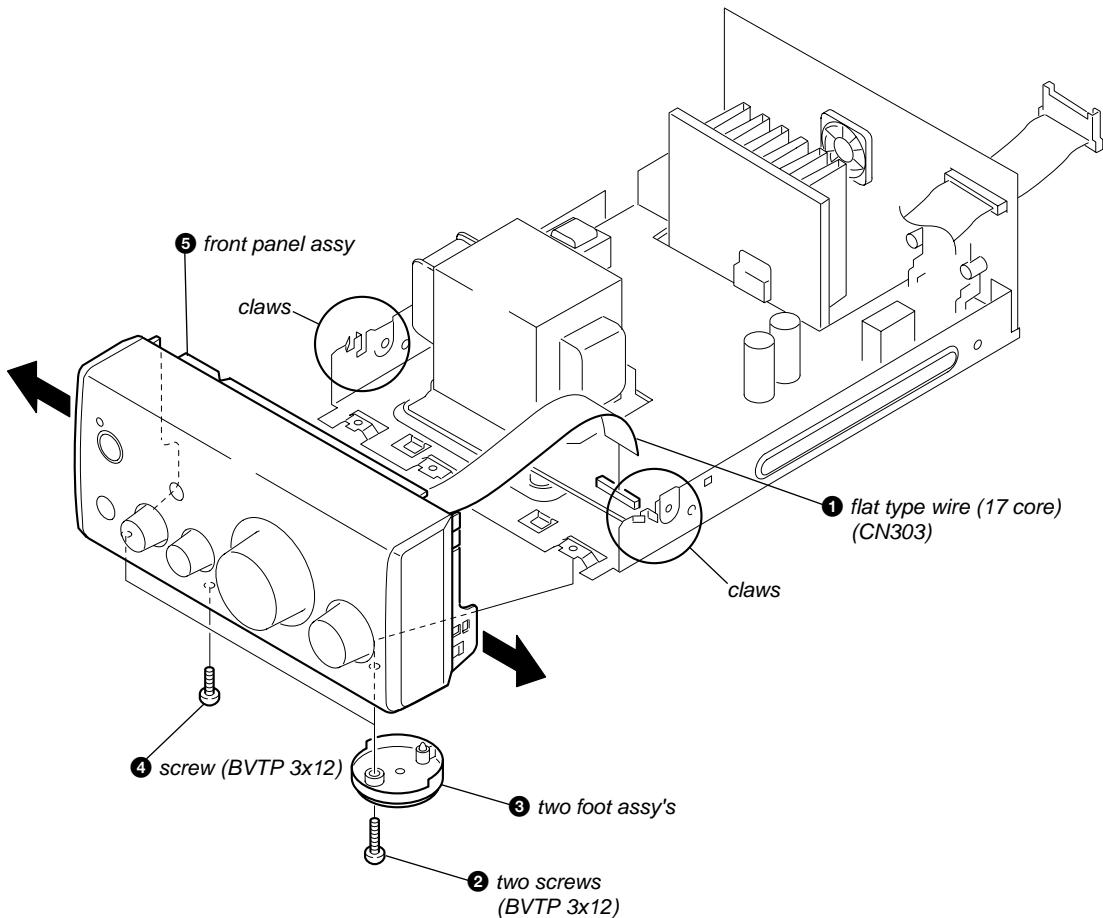
SECTION 3 DISASSEMBLY

Set → Case → Front Panel Assy → HP Board, Panel Board

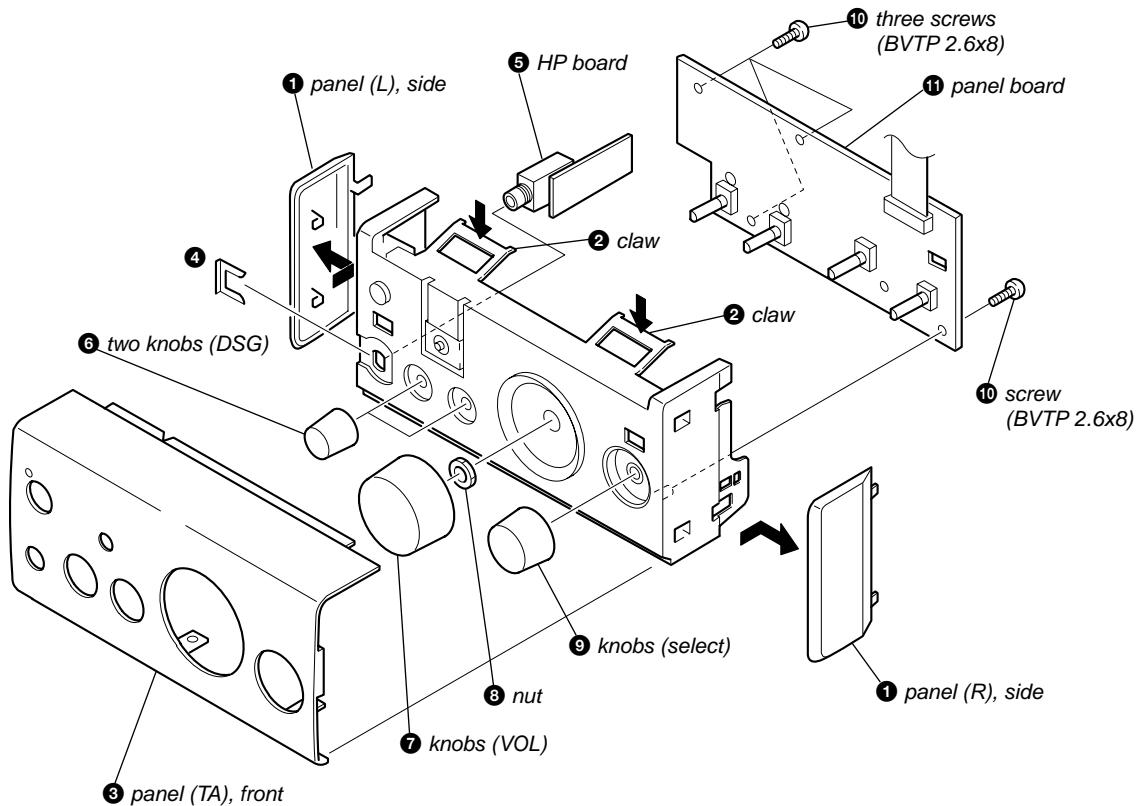
3-1. CASE



3-2. FRONT PANEL ASSY



3-3. HP BOARD, PANEL BOARD



SECTION 4 DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.

(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

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

• Indication of transistor



These are omitted.



These are omitted.

- : B+ Line.

- : B- Line.

- : adjustment for repair.

- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.

- Voltages are taken with a VOM (Input impedance $10\text{ M}\Omega$). 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.

- : FM

- Abbreviation

AED: North European model

MY: Malasia model

SP: Singapore model

HK: Hong Kong model

KR: Korea model

For printed wiring boards.

Note:

- : parts extracted from the component side.

- : parts extracted from the conductor side.

- : Through hole.

- : Pattern from the side which enables seeing.

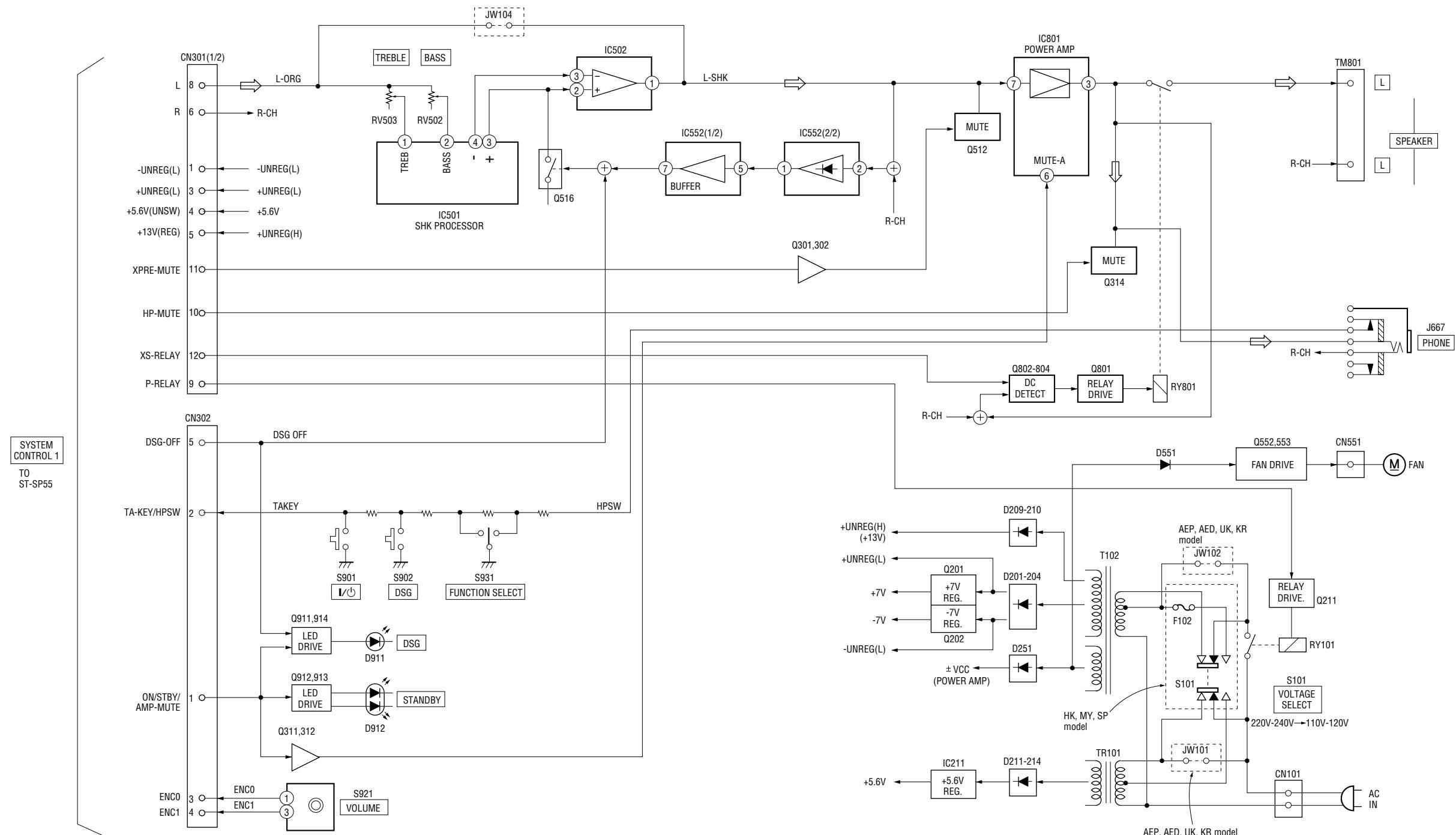
(The other layers' patterns are not indicated.)

Caution:

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

Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

4-1. BLOCK DIAGRAM

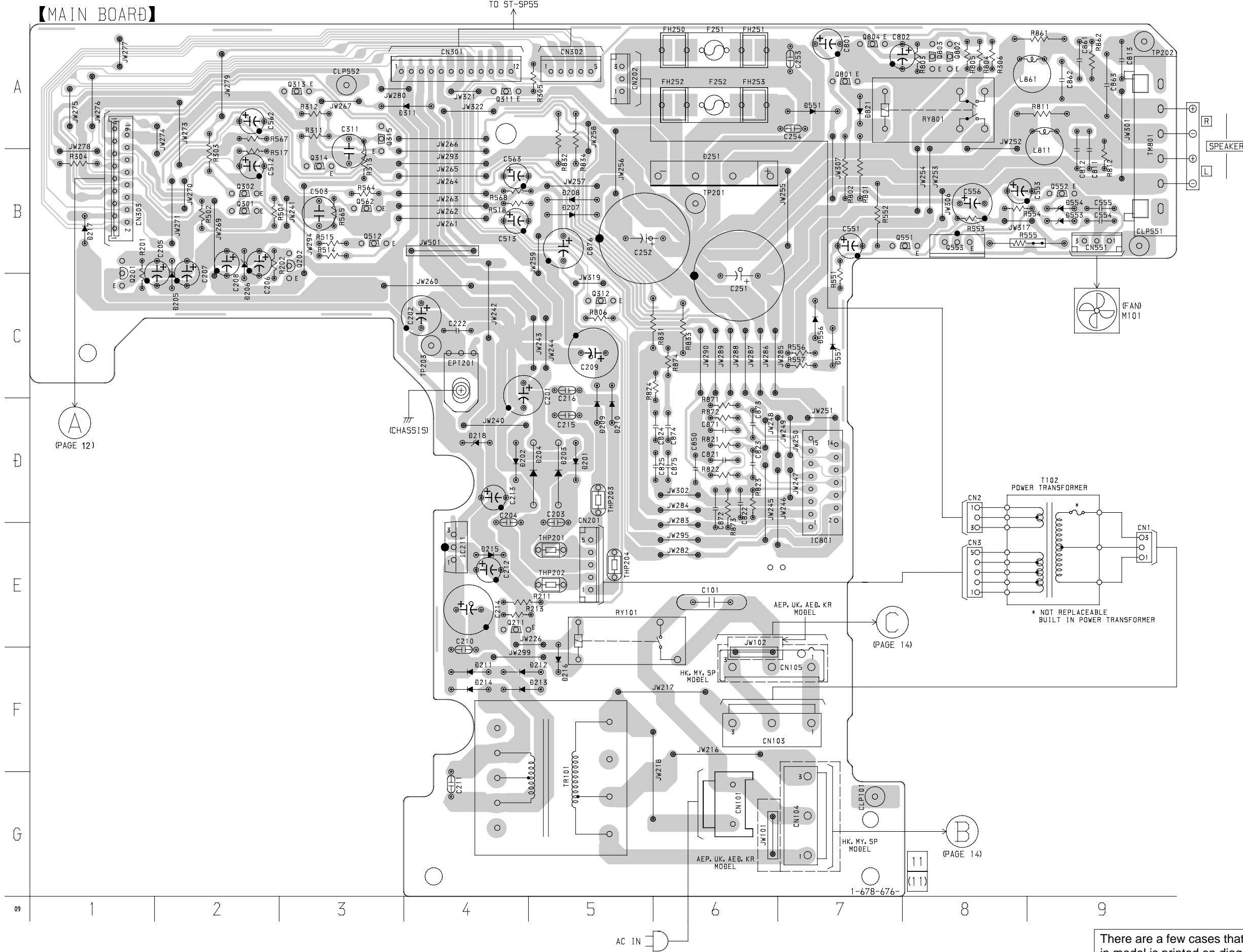


09

- R-ch is omitted due to same as L-ch.
- Signal Path
⇒ FM

4-2. PRINTED WIRING BOARD - MAIN SECTION -

【MAIN BOARD】



• Semiconductor Location

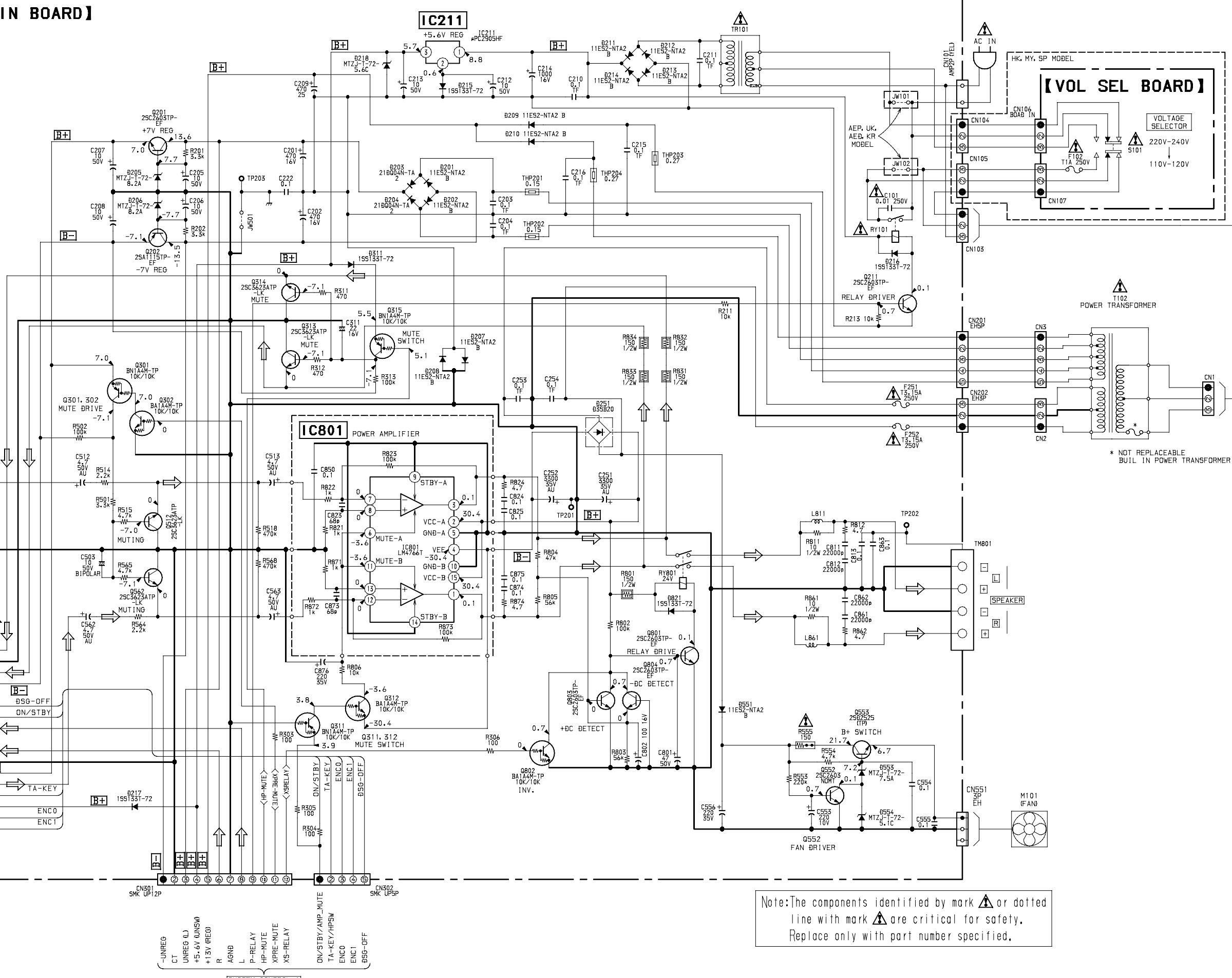
Ref. No.	Location
D201	D-5
D202	D-4
D203	D-5
D204	D-4
D205	C-2
D206	C-2
D207	B-5
D208	B-5
D209	D-5
D210	D-5
D211	F-4
D212	F-4
D213	F-4
D214	F-4
D215	E-4
D216	F-5
D217	B-1
D218	D-4
D251	B-6
D311	A-4
D551	A-7
D553	B-9
D554	B-9
D821	A-7
IC211	E-4
IC801	E-7
Q201	C-1
Q202	B-3
Q211	E-4
Q301	B-2
Q302	B-2
Q311	A-4
Q312	C-5
Q313	A-3
Q314	B-3
Q315	A-3
Q512	B-3
Q552	B-9
Q553	B-8
Q562	B-8
Q801	A-7
Q802	A-8
Q803	A-8
Q804	A-7

There are a few cases that the part isn't mounted in model is printed on diagram.

4-3. SCHEMATIC DIAGRAM – MAIN SECTION –

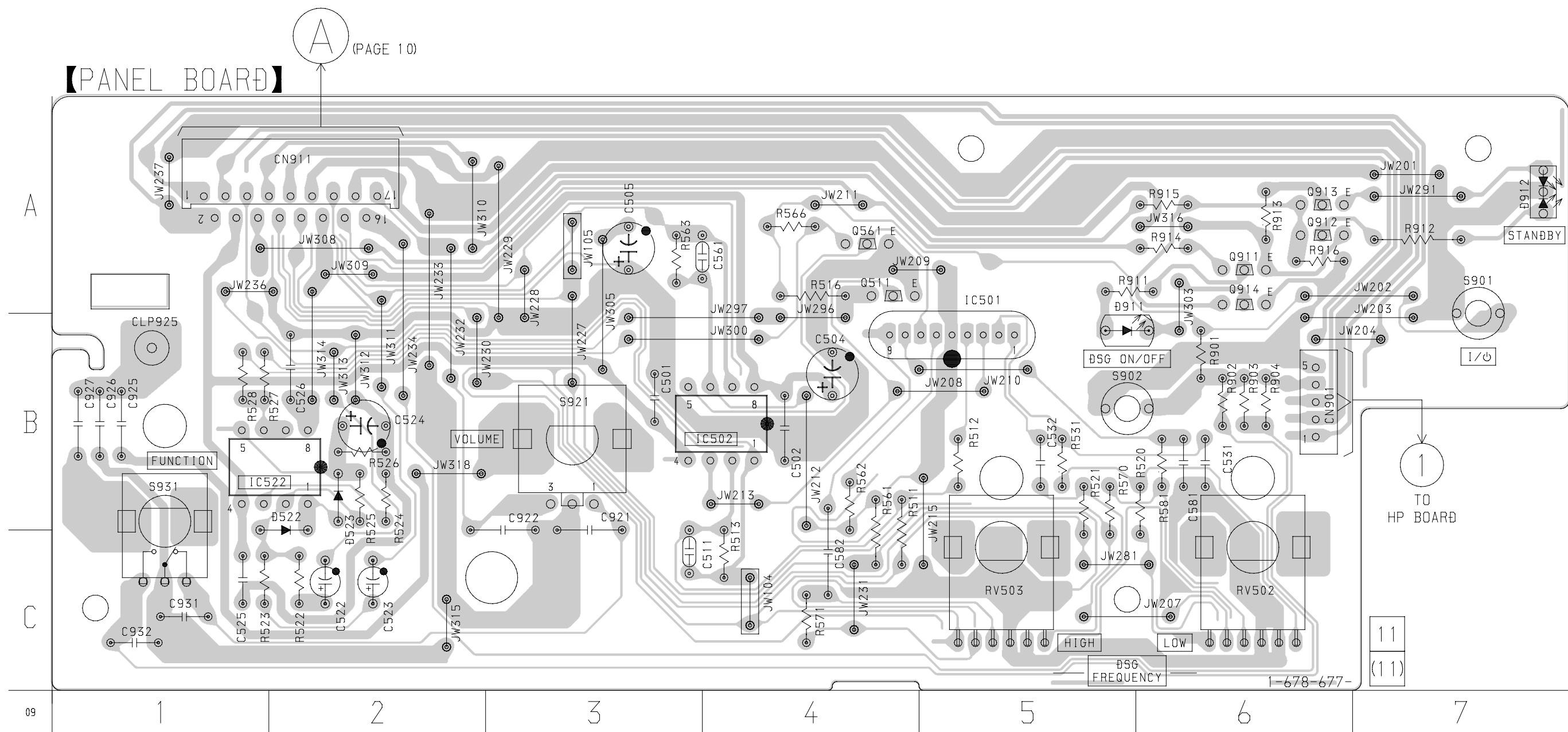
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

【MAIN BOARD】



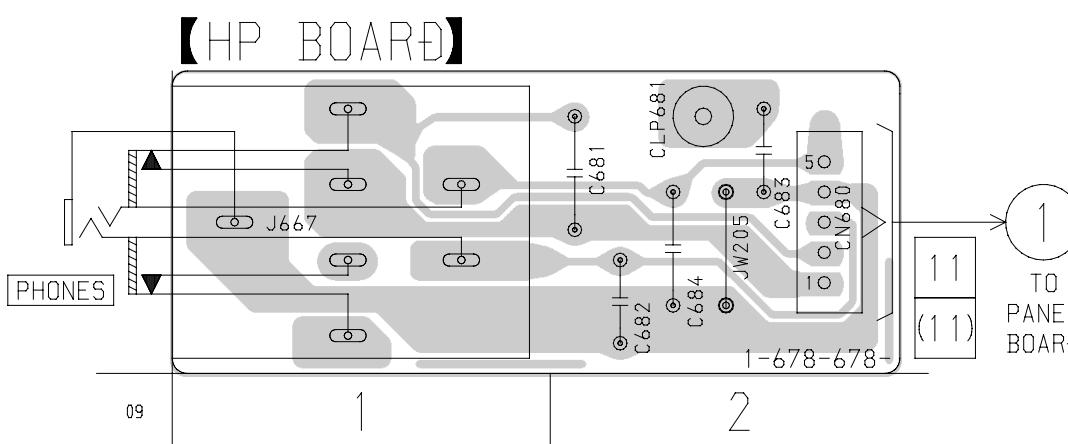
Note: The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

4-4. PRINTED WIRING BOARD – PANEL SECTION –



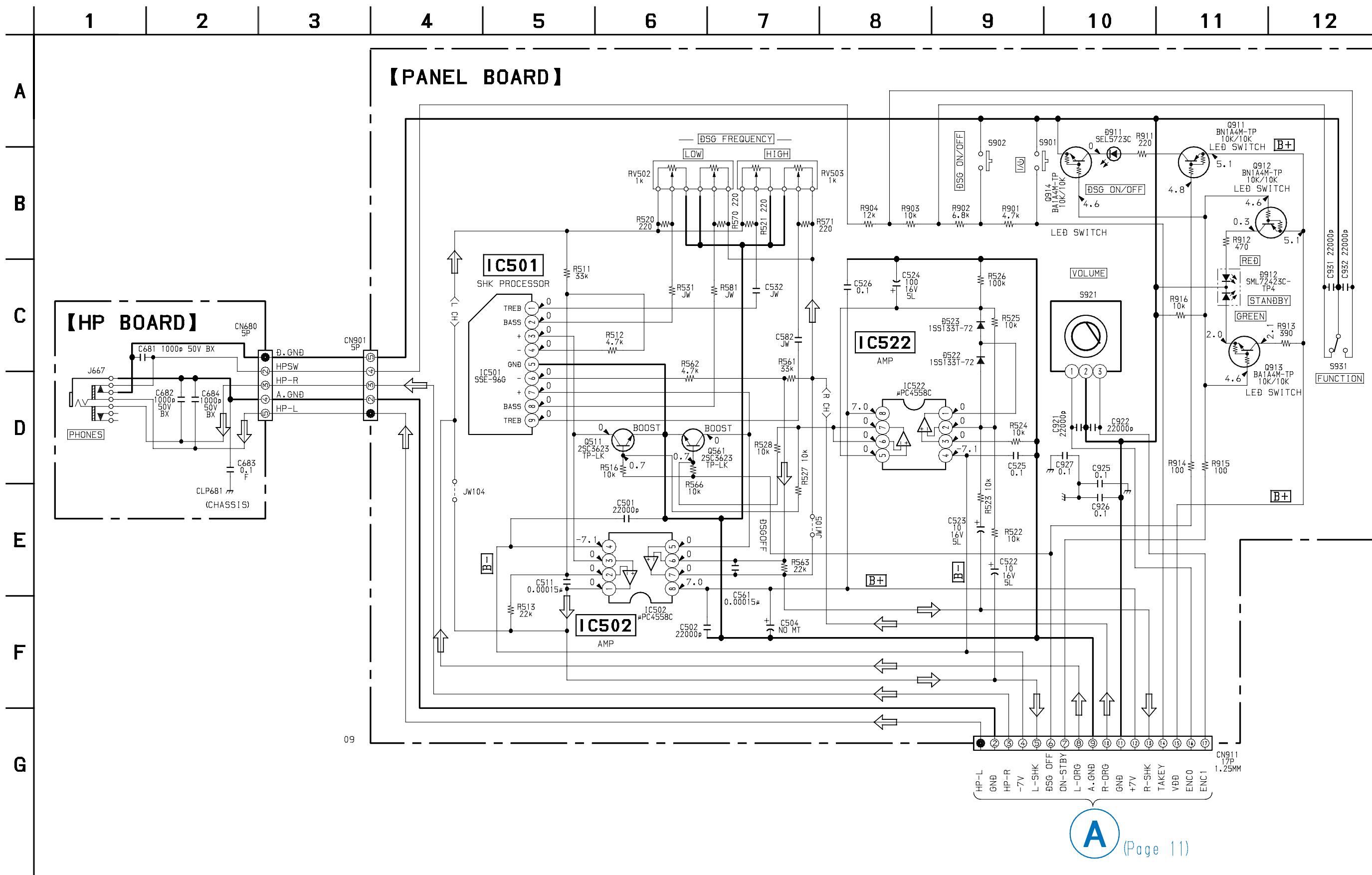
- Semiconductor Location

Ref. No.	Location
D522	B-2
D523	B-2
D911	B-5
D912	A-7
IC501	B-5
IC502	B-4
IC522	B-2
Q511	A-4
Q561	A-4
Q911	A-6
Q912	A-6
Q913	A-6
Q914	A-6

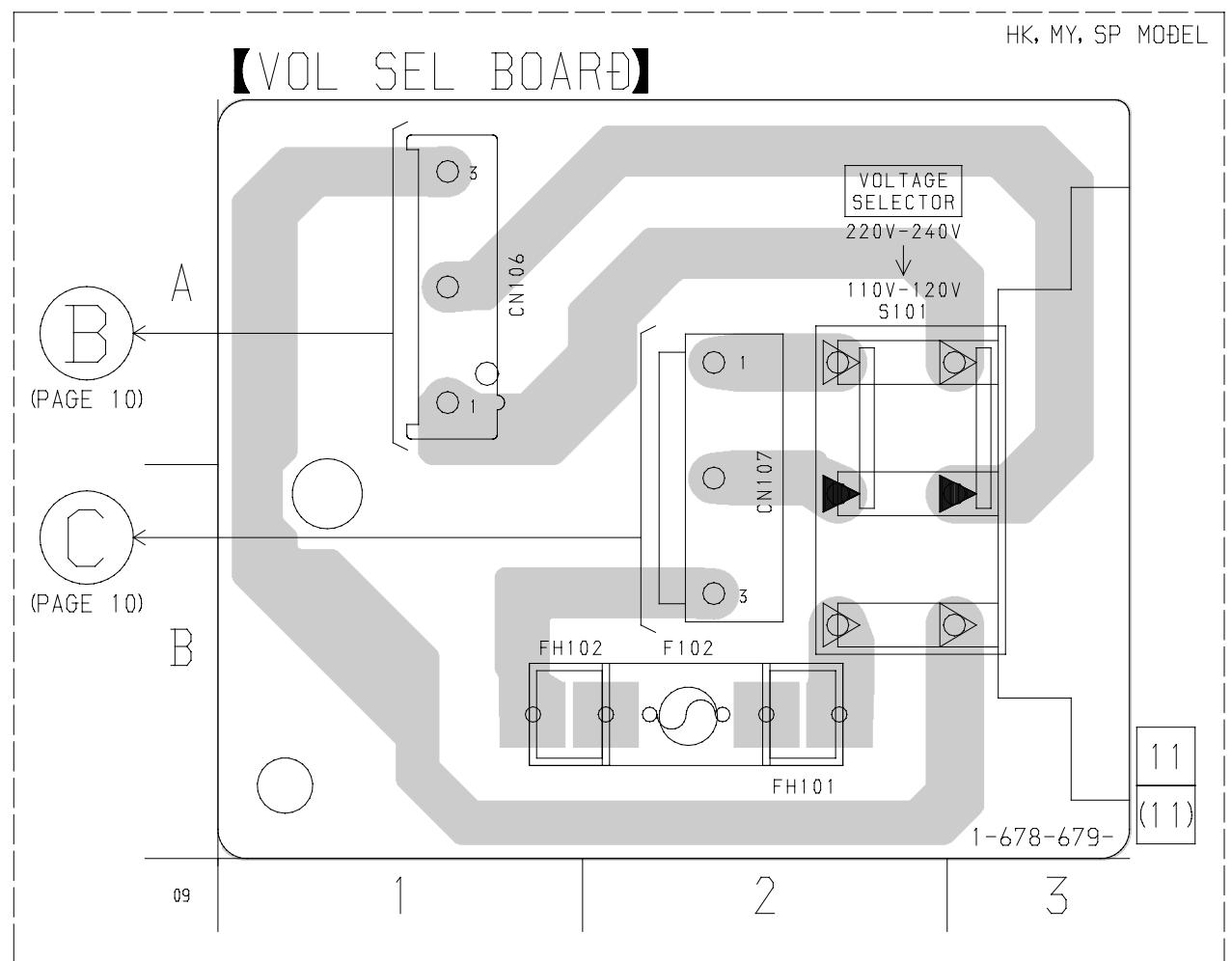


There are a few cases that the part isn't mounted in model is printed on diagram.

4-5. SCHEMATIC DIAGRAM – PANEL SECTION –



4-6. PRINTED WIRING BOARD – VOLSEL SECTION –



SECTION 5 EXPLODED VIEW

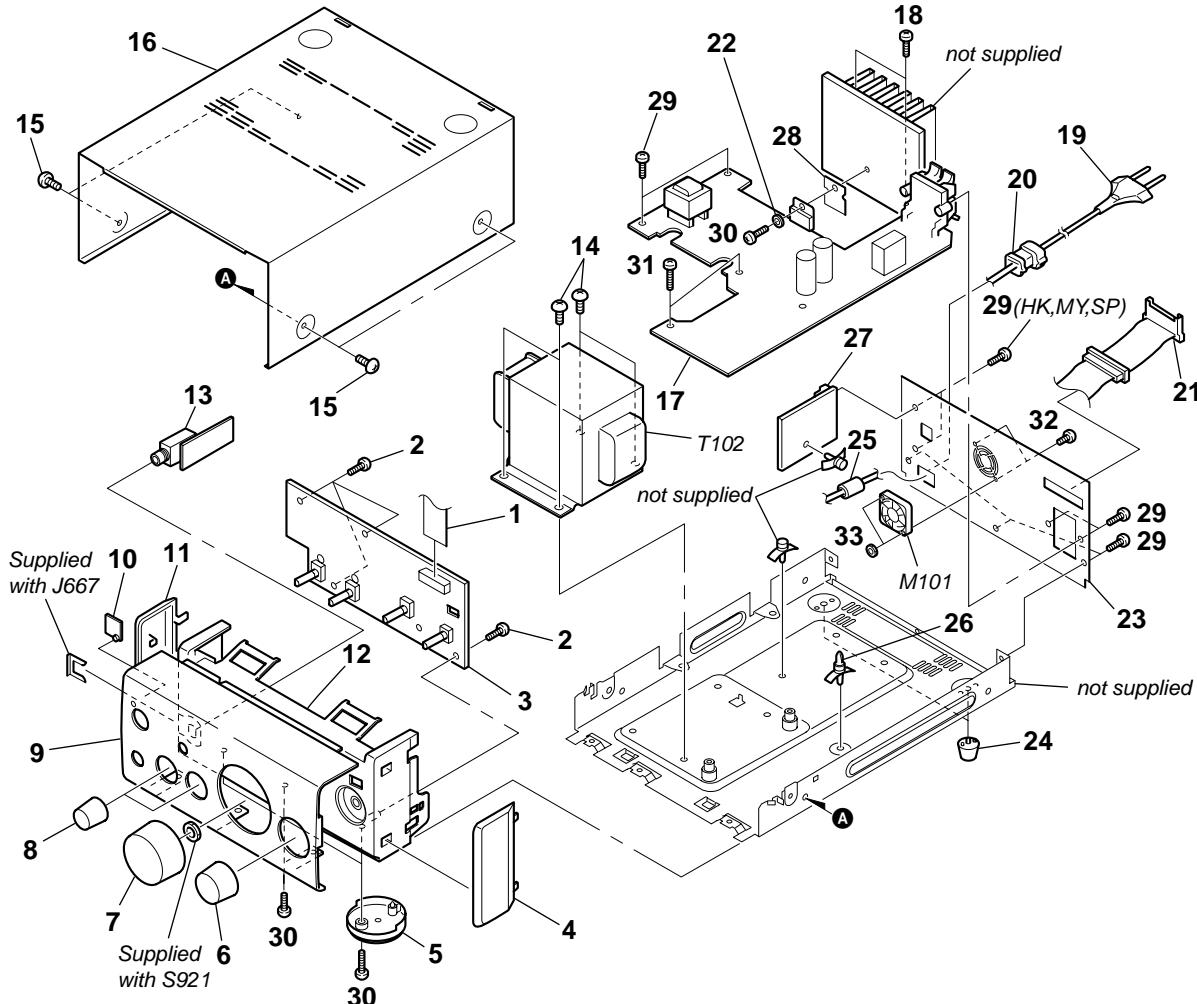
NOTE:

- 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
 - AED : North European model
 - MY : Malasia model
 - SP : Singapore model
 - HK : Hong Kong model
 - KR : Korea model

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

5-1. CASE AND FRONT PANEL



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	1-773-043-11	WIRE (FLAT TYPE) (17 CORE)		\triangle 19	1-777-071-61	CORD, POWER (AEP,AED,UK,HK,MY,SP)	
2	4-951-620-01	SCREW (2.6X8, +BVTP)		* 20	3-703-244-00	BUSHING (2104), CORD	
3	1-678-677-11	PANEL BOARD		21	1-792-922-11	CORD (WITH CONNECTOR)	
4	4-229-703-01	PLATE (R), SIDE		22	4-857-425-00	BUSHING, 03P INSULATING	
5	X-4953-027-1	FOOT ASSY		23	4-229-700-01	PANEL, BACK (AEP,AED,UK)	
6	4-229-692-01	KNOB (SELECT)		23	4-229-700-21	PANEL, BACK (MY,SP)	
7	4-229-691-01	KNOB (VOL)		23	4-229-700-31	PANEL, BACK (HK)	
8	4-229-693-01	KNOB (DSG)		23	4-229-700-41	PANEL, BACK (KR)	
9	4-229-690-01	PANEL(TA), FRONT		24	4-965-822-01	FOOT	
10	4-229-697-01	INDICATOR (P)		25	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
11	4-229-704-01	PLATE (L), SIDE		* 26	4-954-051-41	HOLDER, PC BOARD	
12	X-4953-023-1	PANEL ASSY (TA), SUB		27	1-678-679-11	VOL SEL BOARD (HK,MY,SP)	
13	1-678-678-11	HP BOARD		28	4-230-423-01	SHEET, INSULATING	
14	4-900-386-01	SCREW		29	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
15	3-363-099-51	SCREW (CASE 3 TP2)		30	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
16	4-229-701-31	CASE		31	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
17	A-4473-728-A	MAIN BOARD, COMPLETE (AEP,AED,UK,KR)		32	7-682-563-09	SCREW +B 4X12	
18	A-4473-732-A	MAIN BOARD, COMPLETE (HK,MY,SP)		33	7-684-024-04	N 4, TYPE 2	
19	3-970-608-11	SUMITITE (B3), +BV		M101	1-698-997-21	FAN, D.C.	
	1-769-079-11	CORD, POWER (KR)		\triangle T102	1-435-600-11	TRANSFORMER, POWER (AEP,AED,UK,KR)	
				\triangle T102	1-435-601-11	TRANSFORMER, POWER (HK,MY,SP)	

SECTION 6

ELECTRICAL PARTS LIST

Note:

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

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

- Due to standardization, replacements in the parts list may be 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.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable

- 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
- Abbreviation
AED : North European model
MY : Malasia model
SP : Singapore model
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KR : Korea model

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
	1-678-678-11	HP BOARD *****	C503	1-107-714-11	ELECT	10uF	20%	50V			
			C512	1-126-047-71	ELECT	4.7uF	20%	50V			
		< CAPACITOR >	C513	1-126-047-71	ELECT	4.7uF	20%	50V			
C681	1-162-294-31	CERAMIC	0.001uF	10%	50V	C553	1-126-934-11	ELECT	220uF	20%	10V
C682	1-162-294-31	CERAMIC	0.001uF	10%	50V	C554	1-164-159-11	CERAMIC	0.1uF		50V
C683	1-164-159-11	CERAMIC	0.1uF		50V	C555	1-164-159-11	CERAMIC	0.1uF		50V
C684	1-162-294-31	CERAMIC	0.001uF	10%	50V	C556	1-126-949-11	ELECT	220uF	20%	35V
		< JACK >	C562	1-126-047-71	ELECT	4.7uF	20%	50V			
J667	1-774-933-11	JACK (LARGE TYPE) (PHONES)	C563	1-126-047-71	ELECT	4.7uF	20%	50V			
		*****	C801	1-126-967-11	ELECT	47uF	20%	50V			
	A-4473-728-A	MAIN BOARD, COMPLETE (AEP,AED,UK,KR)	C802	1-126-933-11	ELECT	100uF	20%	16V			
		*****	C811	1-161-494-00	CERAMIC	0.022uF		25V			
	A-4473-732-A	MAIN BOARD, COMPLETE (HK,MY,SP)	C812	1-161-494-00	CERAMIC	0.022uF		25V			
		*****	C813	1-164-159-11	CERAMIC	0.1uF		50V			
*	1-533-293-11	FUSE HOLDER	C823	1-162-219-31	CERAMIC	68PF	5%	50V			
*	4-374-846-21	COVER, CAPACITOR, CAP TYPE	C824	1-164-159-11	CERAMIC	0.1uF		50V			
		< CAPACITOR >	C825	1-164-159-11	CERAMIC	0.1uF		50V			
\triangle C101	1-113-925-11	CERAMIC	0.01uF	20%	250V	C850	1-164-159-11	CERAMIC	0.1uF		50V
C201	1-126-935-11	ELECT	470uF	20%	16V	C861	1-161-494-00	CERAMIC	0.022uF		25V
C202	1-126-935-11	ELECT	470uF	20%	16V	C862	1-161-494-00	CERAMIC	0.022uF		25V
C203	1-136-165-00	MYLAR	0.1uF	5%	50V	C863	1-164-159-11	CERAMIC	0.1uF		50V
C204	1-136-165-00	MYLAR	0.1uF	5%	50V	C873	1-162-219-31	CERAMIC	68PF	5%	50V
C205	1-126-964-11	ELECT	10uF	20%	50V	* CN101	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
C206	1-126-964-11	ELECT	10uF	20%	50V	CN103	1-564-321-00	PIN, CONNECTOR 2P (AEP,AED,UK,KR)			
C207	1-126-964-11	ELECT	10uF	20%	50V	* CN103	1-564-687-11	PIN, CONNECTOR 3P (HK,MY,SP)			
C208	1-126-964-11	ELECT	10uF	20%	50V	* CN104	1-564-687-11	PIN, CONNECTOR 3P (HK,MY,SP)			
C209	1-126-941-11	ELECT	470uF	20%	25V	* CN201	1-564-508-11	PLUG, CONNECTOR 5P			
C210	1-136-165-00	MYLAR	0.1uF	5%	50V	CN202	1-564-506-11	PLUG, CONNECTOR 3P			
C211	1-136-165-00	MYLAR	0.1uF	5%	50V	CN301	1-794-568-11	PIN, CONNECTOR 12P			
C212	1-126-964-11	ELECT	10uF	20%	50V	CN302	1-794-569-11	PIN, CONNECTOR 5P			
C213	1-126-964-11	ELECT	10uF	20%	50V	CN303	1-784-778-11	CONNECTOR, FFC 17P			
C214	1-126-767-11	ELECT	1000uF	20%	16V	CN551	1-564-506-11	PLUG, CONNECTOR 3P			
C215	1-136-165-00	MYLAR	0.1uF	5%	50V						
C216	1-136-165-00	MYLAR	0.1uF	5%	50V						
C222	1-164-159-11	CERAMIC	0.1uF		50V						
C225	1-126-042-11	ELECT	3300uF	20%	35V	D201	8-719-024-99	DIODE 11ES2-NTA2B			
C225	1-126-042-11	ELECT	3300uF	20%	35V	D202	8-719-024-99	DIODE 11ES2-NTA2B			
C253	1-136-165-00	MYLAR	0.1uF	5%	50V	D203	8-719-975-85	DIODE 21DQ04N-TA2			
C254	1-136-165-00	MYLAR	0.1uF	5%	50V	D204	8-719-975-85	DIODE 21DQ04N-TA2			
C311	1-107-715-11	ELECT	22uF	20%	16V	D205	8-719-947-36	DIODE MTZJ-T-72-8.2A			

Ref. No.	Part No.	Description		Remarks		Ref. No.	Part No.	Description		Remarks								
D206	8-719-947-36	DIODE MTZJ-T-72-8.2A		R213	1-249-429-11	CARBON	10K	5%	1/4W									
D207	8-719-024-99	DIODE 11ES2-NTA2B		R303	1-247-807-31	CARBON	100	5%	1/4W									
D208	8-719-024-99	DIODE 11ES2-NTA2B		R304	1-247-807-31	CARBON	100	5%	1/4W									
D209	8-719-024-99	DIODE 11ES2-NTA2B		R305	1-247-807-31	CARBON	100	5%	1/4W									
D210	8-719-024-99	DIODE 11ES2-NTA2B		R306	1-247-807-31	CARBON	100	5%	1/4W									
D211	8-719-024-99	DIODE 11ES2-NTA2B		R311	1-249-413-11	CARBON	470	5%	1/4W	F								
D212	8-719-024-99	DIODE 11ES2-NTA2B		R312	1-249-413-11	CARBON	470	5%	1/4W	F								
D213	8-719-024-99	DIODE 11ES2-NTA2B		R313	1-249-441-11	CARBON	100K	5%	1/4W									
D214	8-719-024-99	DIODE 11ES2-NTA2B		R501	1-247-843-11	CARBON	3.3K	5%	1/4W									
D215	8-719-911-19	DIODE 1SS133T-72		R502	1-249-441-11	CARBON	100K	5%	1/4W									
D216	8-719-911-19	DIODE 1SS133T-72		R514	1-249-421-11	CARBON	2.2K	5%	1/4W	F								
D217	8-719-911-19	DIODE 1SS133T-72		R515	1-249-425-11	CARBON	4.7K	5%	1/4W	F								
D218	8-719-921-48	DIODE MTZJ-T-72-5.6C		R518	1-247-895-00	CARBON	470K	5%	1/4W									
D251	8-719-500-33	DIODE D3SB20		R553	1-247-887-00	CARBON	220K	5%	1/4W									
D311	8-719-911-19	DIODE 1SS133T-72		R554	1-249-425-11	CARBON	4.7K	5%	1/4W	F								
D551	8-719-024-99	DIODE 11ES2-NTA2B		▲ R555	1-215-887-11	METAL OXIDE	150	5%	2W									
D553	8-719-947-33	DIODE MTZJ-T-72-7.5A		R564	1-249-421-11	CARBON	2.2K	5%	1/4W	F								
D554	8-719-921-44	DIODE MTZJ-T-72-5.1C		R565	1-249-425-11	CARBON	4.7K	5%	1/4W	F								
D821	8-719-911-19	DIODE 1SS133T-72		R568	1-247-895-00	CARBON	470K	5%	1/4W									
< GROUND TERMINAL >																		
EPT201	1-537-770-21	TERMINAL BOARD, GROUND		R801	1-260-089-11	CARBON	150	5%	1/2W									
< FUSE >																		
△ F251	1-532-465-31	FUSE T3.15AL/250V		R802	1-249-441-11	CARBON	100K	5%	1/4W									
△ F252	1-532-465-31	FUSE T3.15AL/250V		R803	1-249-438-11	CARBON	56K	5%	1/4W									
< IC >																		
IC211	8-759-647-11	IC uPC2905HF		R804	1-249-437-11	CARBON	47K	5%	1/4W									
IC801	8-759-681-35	IC LM4766T		R805	1-249-438-11	CARBON	56K	5%	1/4W									
< COIL >																		
L811	1-420-872-00	COIL, AIR-CORE		R806	1-249-429-11	CARBON	10K	5%	1/4W									
L861	1-420-872-00	COIL, AIR-CORE		R811	1-260-076-11	CARBON	10	5%	1/2W									
< TRANSISTOR >																		
Q201	8-729-620-05	TRANSISTOR 2SC2603TP-EF		R812	1-249-389-11	CARBON	4.7	5%	1/4W	F								
Q202	8-729-119-76	TRANSISTOR 2SA1115TP-EF		R821	1-249-417-11	CARBON	1K	5%	1/4W	F								
Q211	8-729-620-05	TRANSISTOR 2SC2603TP-EF		R822	1-249-417-11	CARBON	1K	5%	1/4W	F								
Q301	8-729-422-57	TRANSISTOR BN1A4M-TP		R823	1-249-441-11	CARBON	100K	5%	1/4W									
Q302	8-729-900-80	TRANSISTOR BA1A4M-TP		R824	1-249-389-11	CARBON	4.7	5%	1/4W	F								
Q311	8-729-422-57	TRANSISTOR BN1A4M-TP		R831	1-260-089-11	CARBON	150	5%	1/2W									
Q312	8-729-900-80	TRANSISTOR BA1A4M-TP		R832	1-260-089-11	CARBON	150	5%	1/2W									
Q313	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		R833	1-260-089-11	CARBON	150	5%	1/2W									
Q314	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		R834	1-260-089-11	CARBON	150	5%	1/2W									
Q315	8-729-422-57	TRANSISTOR BN1A4M-TP		R861	1-260-076-11	CARBON	10	5%	1/2W									
Q512	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		R862	1-249-389-11	CARBON	4.7	5%	1/4W	F								
Q552	8-729-620-05	TRANSISTOR 2SC2603TP-EF		R871	1-249-417-11	CARBON	1K	5%	1/4W	F								
Q553	8-729-026-68	TRANSISTOR 2SD2525(TP)		R872	1-249-417-11	CARBON	1K	5%	1/4W	F								
Q562	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		R873	1-249-441-11	CARBON	100K	5%	1/4W									
Q801	8-729-620-05	TRANSISTOR 2SC2603TP-EF		R874	1-249-389-11	CARBON	4.7	5%	1/4W	F								
Q802	8-729-900-80	TRANSISTOR BA1A4M-TP		< RELAY >														
Q803	8-729-620-05	TRANSISTOR 2SC2603TP-EF		RY101	1-755-276-11	RELAY, POWER												
Q804	8-729-620-05	TRANSISTOR 2SC2603TP-EF		RY801	1-515-920-11	RELAY (24V)												
< RESISTOR >												< THERMISTOR(POSITIVE) >						
R201	1-247-843-11	CARBON	3.3K	5%	1/4W	THP201	1-804-233-21	THERMISTOR, POSITIVE										
R202	1-247-843-11	CARBON	3.3K	5%	1/4W	THP202	1-804-233-21	THERMISTOR, POSITIVE										
R211	1-249-429-11	CARBON	10K	5%	1/4W	THP203	1-804-234-21	THERMISTOR, POSITIVE										
< TERMINAL >												TM801	1-694-677-11	TERMINAL BOARD (4P) (SPEAKERS)				
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified. </div>																		

MAIN

PANEL

VOL SEL

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< POWER TRANSFORMER >							
△TR101	1-435-624-11	TRANSFORMER, POWER (AEP,AED,UK,KR)		R522	1-249-429-11	CARBON	10K 5% 1/4W
△TR101	1-435-625-11	TRANSFORMER, POWER (HK,MY,SP)		R523	1-249-429-11	CARBON	10K 5% 1/4W

1-678-677-11		PANEL BOARD		R524	1-249-429-11	CARBON	10K 5% 1/4W

< CAPACITOR >							
C501	1-161-494-00	CERAMIC	0.022uF 25V	R526	1-249-441-11	CARBON	100K 5% 1/4W
C502	1-161-494-00	CERAMIC	0.022uF 25V	R527	1-249-429-11	CARBON	10K 5% 1/4W
C511	1-110-337-51	MYLAR	150PF 5% 50V	R528	1-249-429-11	CARBON	10K 5% 1/4W
C522	1-126-157-11	ELECT	10uF 20% 16V	R561	1-249-435-11	CARBON	33K 5% 1/4W
C523	1-126-157-11	ELECT	10uF 20% 16V	R562	1-249-425-11	CARBON	4.7K 5% 1/4W F
C524	1-126-933-11	ELECT	100uF 20% 16V	R563	1-249-433-11	CARBON	22K 5% 1/4W
C525	1-164-159-11	CERAMIC	0.1uF 50V	R566	1-249-429-11	CARBON	10K 5% 1/4W
C526	1-164-159-11	CERAMIC	0.1uF 50V	R570	1-249-409-11	CARBON	220 5% 1/4W F
C561	1-110-337-51	MYLAR	150PF 5% 50V	R571	1-249-409-11	CARBON	220 5% 1/4W F
C921	1-161-494-00	CERAMIC	0.022uF 25V	R901	1-249-425-11	CARBON	4.7K 5% 1/4W F
C922	1-161-494-00	CERAMIC	0.022uF 25V	R902	1-249-427-11	CARBON	6.8K 5% 1/4W F
C925	1-164-159-11	CERAMIC	0.1uF 50V	R903	1-249-429-11	CARBON	10K 5% 1/4W
C926	1-164-159-11	CERAMIC	0.1uF 50V	R904	1-249-430-11	CARBON	12K 5% 1/4W
C927	1-164-159-11	CERAMIC	0.1uF 50V	R911	1-249-409-11	CARBON	220 5% 1/4W F
C931	1-161-494-00	CERAMIC	0.022uF 25V	R912	1-249-413-11	CARBON	470 5% 1/4W F
C932	1-161-494-00	CERAMIC	0.022uF 25V	R913	1-249-412-11	CARBON	390 5% 1/4W F
< VARIABLE RESISTOR >							
< LEAD >							
* CLP925	1-690-880-31	LEAD (WITH CONNECTOR)		RV502	1-227-202-11	RES, VAR 1K (DSG FREQ. LOW)	
< CONNECTOR >							
CN911	1-784-739-11	CONNECTOR, FFC 17P		RV503	1-227-202-11	RES, VAR 1K (DSG FREQ. HIGH)	
< DIODE >							
D522	8-719-911-19	DIODE 1SS133T-72		< SWITCH >			
D523	8-719-911-19	DIODE 1SS133T-72		S901	1-771-410-21	SWITCH, TACTILE (I/O)	
D911	8-719-071-42	DIODE SEL5723C-TP15 (DSG ON/OFF)		S902	1-771-410-21	SWITCH, TACTILE (DSG ON/OFF)	
D912	8-719-056-11	DIODE SML72423C-TP15 (STANDBY)		S921	1-476-087-11	ENCODER, ROTARY (VOLUME)	
< IC >							
IC501	8-749-015-28	IC SSE-96G		S931	1-771-963-11	SWITCH (FUNCTION)	
IC502	8-759-705-58	IC NJM4558D-D		*****			
IC522	8-759-705-58	IC NJM4558D-D		1-678-679-11 VOL SEL BOARD (HK,MY,SP)			
< TRANSISTOR >							
Q511	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		*****			
Q561	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		1-533-293-11 FUSE HOLDER (HK,MY,SP)			
Q911	8-729-422-57	TRANSISTOR BN1A4M-TP		< CONNECTOR >			
Q912	8-729-422-57	TRANSISTOR BN1A4M-TP		** CN107	1-564-687-11	PIN, CONNECTOR 3P (HK,MY,SP)	
Q913	8-729-900-80	TRANSISTOR BA1A4M-TP		< FUSE >			
Q914	8-729-900-80	TRANSISTOR BA1A4M-TP		△ F102	1-532-463-31	FUSE 1A/250V (HK,MY,SP) (HK,MY,SP)	
< RESISTOR >							
R511	1-249-435-11	CARBON	33K 5% 1/4W	< SWITCH >			
R512	1-249-425-11	CARBON	4.7K 5% 1/4W F	△ S101	1-571-309-11	SWITCH (VOLTAGE SELECTOR) (HK,MY,SP)	
R513	1-249-433-11	CARBON	22K 5% 1/4W	*****			
R516	1-249-429-11	CARBON	10K 5% 1/4W				
R520	1-249-409-11	CARBON	220 5% 1/4W F				
R521	1-249-409-11	CARBON	220 5% 1/4W F	The components identified by mark △ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.			

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
		MISCELLANEOUS	

1	1-773-043-11	WIRE (FLAT TYPE) (17 CORE)	
▲19	1-769-079-11	CORD, POWER (KR)	
▲19	1-777-071-61	CORD, POWER (AEP,AED,UK,HK,MY,SP)	
21	1-792-922-11	CORD (WITH CONNECTOR)	
25	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	

M101	1-698-997-21	FAN, D.C.	
▲T102	1-435-600-11	TRANSFORMER, POWER (AEP,AED,UK,KR)	
▲T102	1-435-601-11	TRANSFORMER, POWER (HK,MY,SP)	

ACCESSORIES & PACKING MATERIALS

▲	1-569-008-21	ADAPTOR, CONVERSION 2P (MY,SP)	
▲	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK,HK)	

