

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 $\square\square$ 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

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.

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

Design and specifications are subject to change without notice.

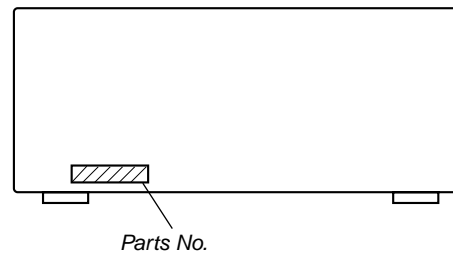
MICRO Hi-Fi COMPONENT SYSTEM

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 \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 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 :

- When the power ON, press the  button (TA) while pressing the  button (ST) and  buttons (CDP) together.
- “COLD RESET” is displayed on the fluorescent indicator tube and reset is executed.

Hot Reset




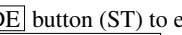

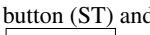

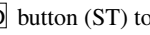

- This mode reset the preset data kept in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure :

- When the power ON, press the  button (TA) while pressing the  button (ST) and  buttons (CDP) together.
- Turn off the unit and reset is executed.





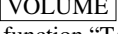



GC Test Mode

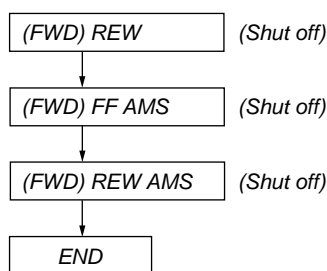
Procedure :


- When the power ON, press the  button (TA) while pressing the  button (ST) and  buttons (CDP) together.
- Fluorescent indicator tube are all turned on.
- Press  button (ST) to enter the model destination indication mode. “SP55 CE2” appears.
- Every pressing of  button (ST) changes the display in the following order.
MC Version → CD Version → ST Version → TC Version → TA Version → TM Version → model destination display.
- Press  button (ST) and the date appears as “00615a”
Every pressing of  button (ST) changes the display in the Version display and model destination display.
- Press  button (ST) to enter the key check mode.
- 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  knob (TA) in the clockwise direction, or decreases like “0, 9, 8 ...” if rotating in the counterclockwise direction.
- To exit from this mode, press three buttons in the same procedure as step 1, or disconnect the power cord.

MC Test Mode

Procedure :

- When the power ON, press the  button (TA) while pressing  button (ST) and  button (CDP) together.
- Frame of the MD mark and the CD mark flash, and “BASS/TRE FLAT” appears for a moment.
- When the  knob (TA) is turned clockwise, “VOLUME MAX” appears for a moment.
- When the  knob (TA) is turned counterclockwise, “VOLUME MIN” appears for a moment.
- Select the function “TAPE” using the  knob (TA).
Set the test tape AMS-110A or AMS-120.
- Press  button (TC) to enter either “↻” (loop) or “↔” (two way).
- Press the  button (TC) to start the AMS test.

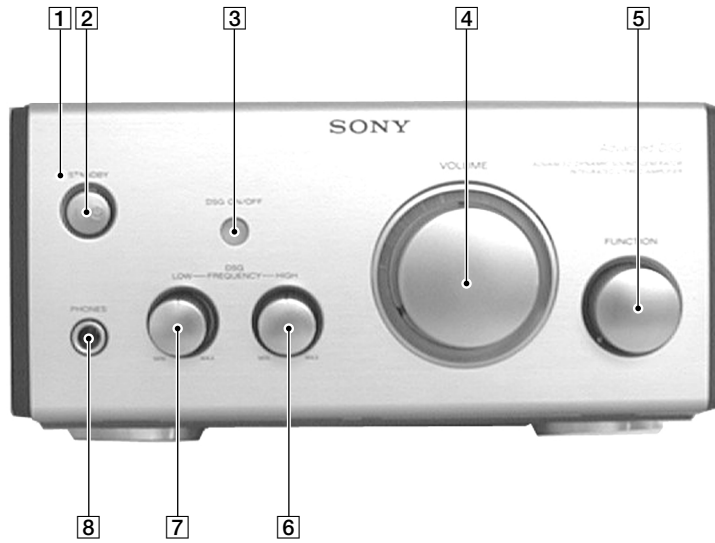


- Number of AMS signals is counted during the AMS test and the message “EDG#” (# means a number) appears. When the test tape either AMS-110A or AMS-120 is used, the AMS signal is detected twice before shut off.
- When the AMS test ends, either “OK” or “NG” appears.
- To exit the MC test mode, either press the  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/⏻ 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 ◀◀ or ▶▶ to set the hour, then press ENTER/YES.
The minute indication flashes.



3 Press ◀◀ or ▶▶ 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 ◀◀ or ▶▶ repeatedly until "SET CLOCK" appears, then press ENTER/YES.
- 3 Repeat steps 2 and 3.

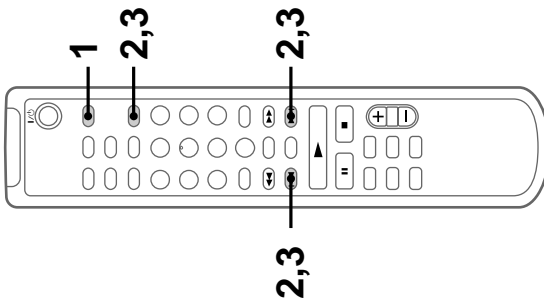
Tips

- 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.



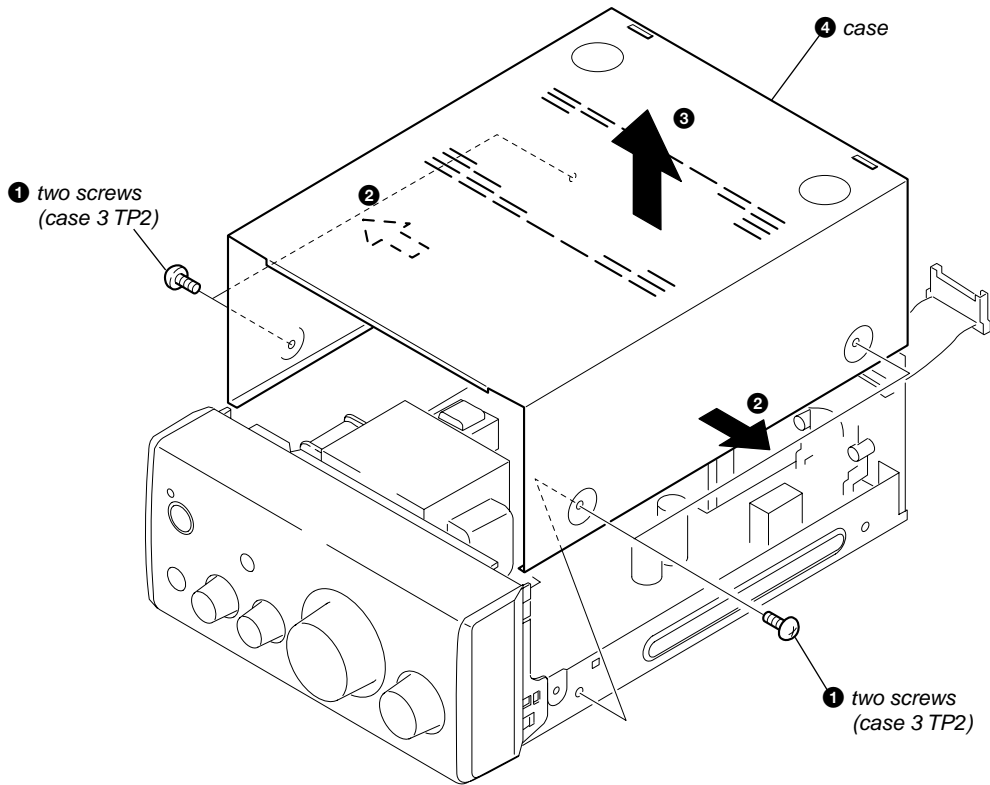
1 Press CLOCK/TIMER SET while the system is off.
The hour indication flashes.



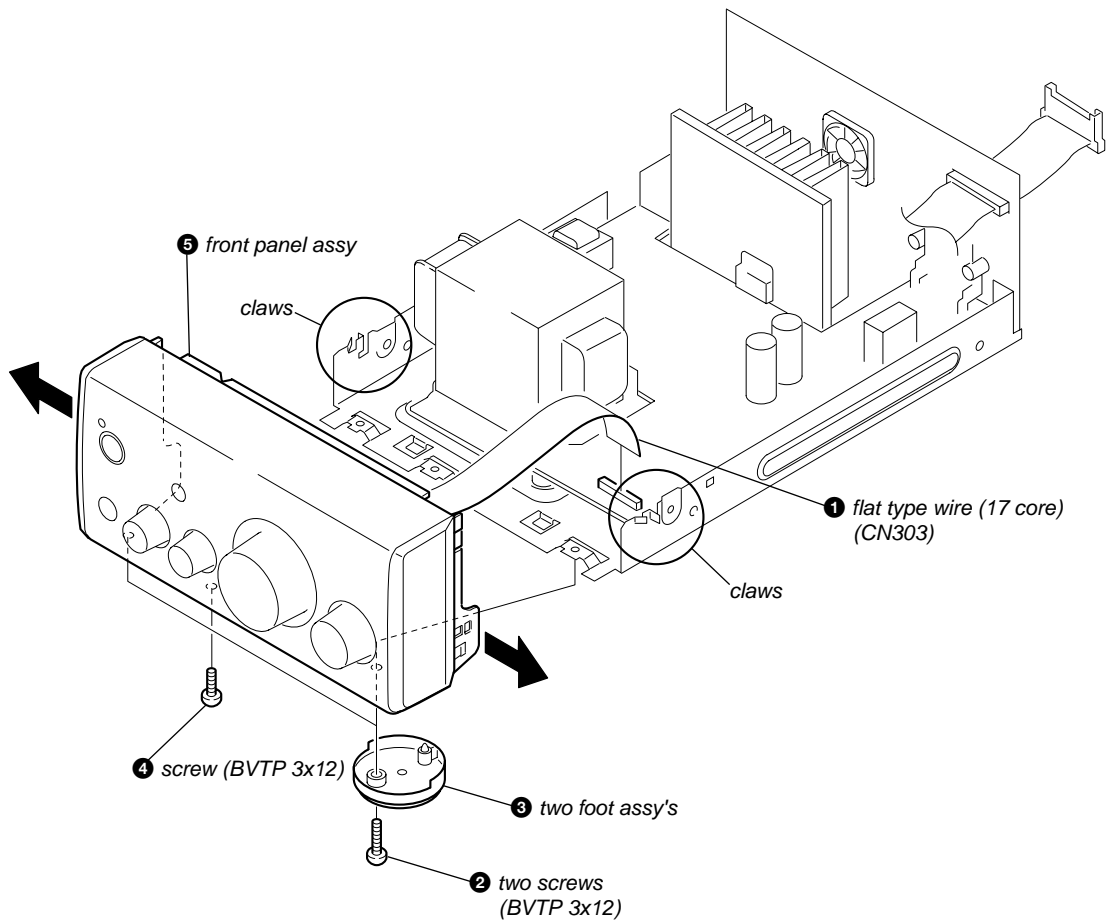
SECTION 3 DISASSEMBLY

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

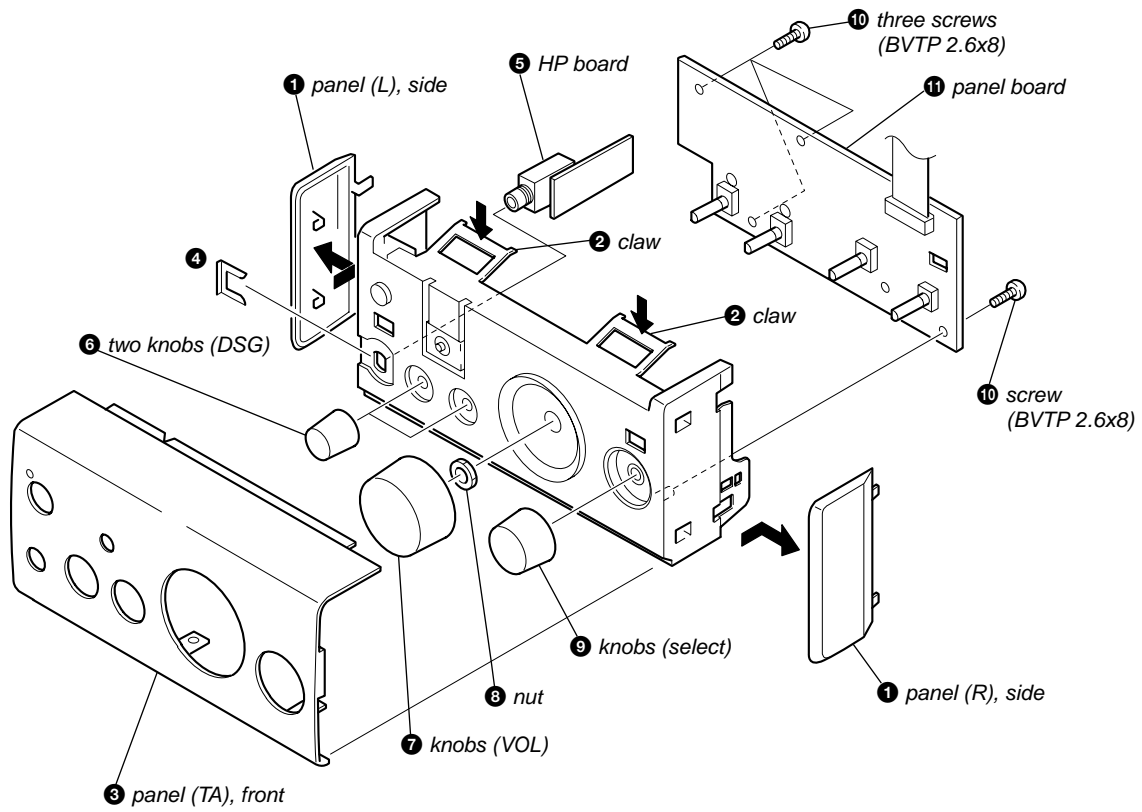
3-1. CASE



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.
- Δ : 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.

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

For printed wiring boards.

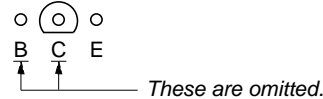
Note:

-  : 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:

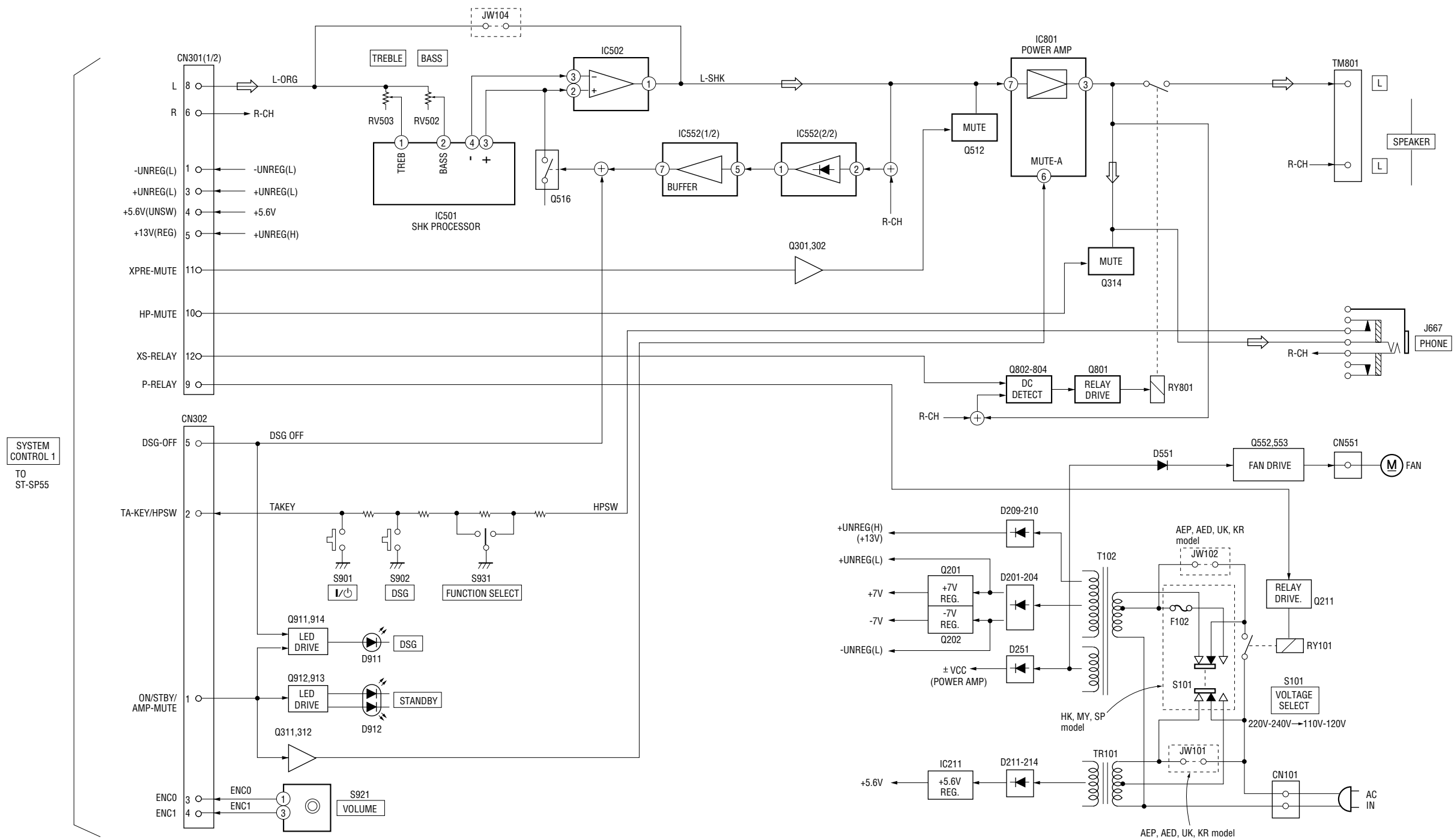
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

• Indication of transistor



MEMO

4-1. BLOCK DIAGRAM

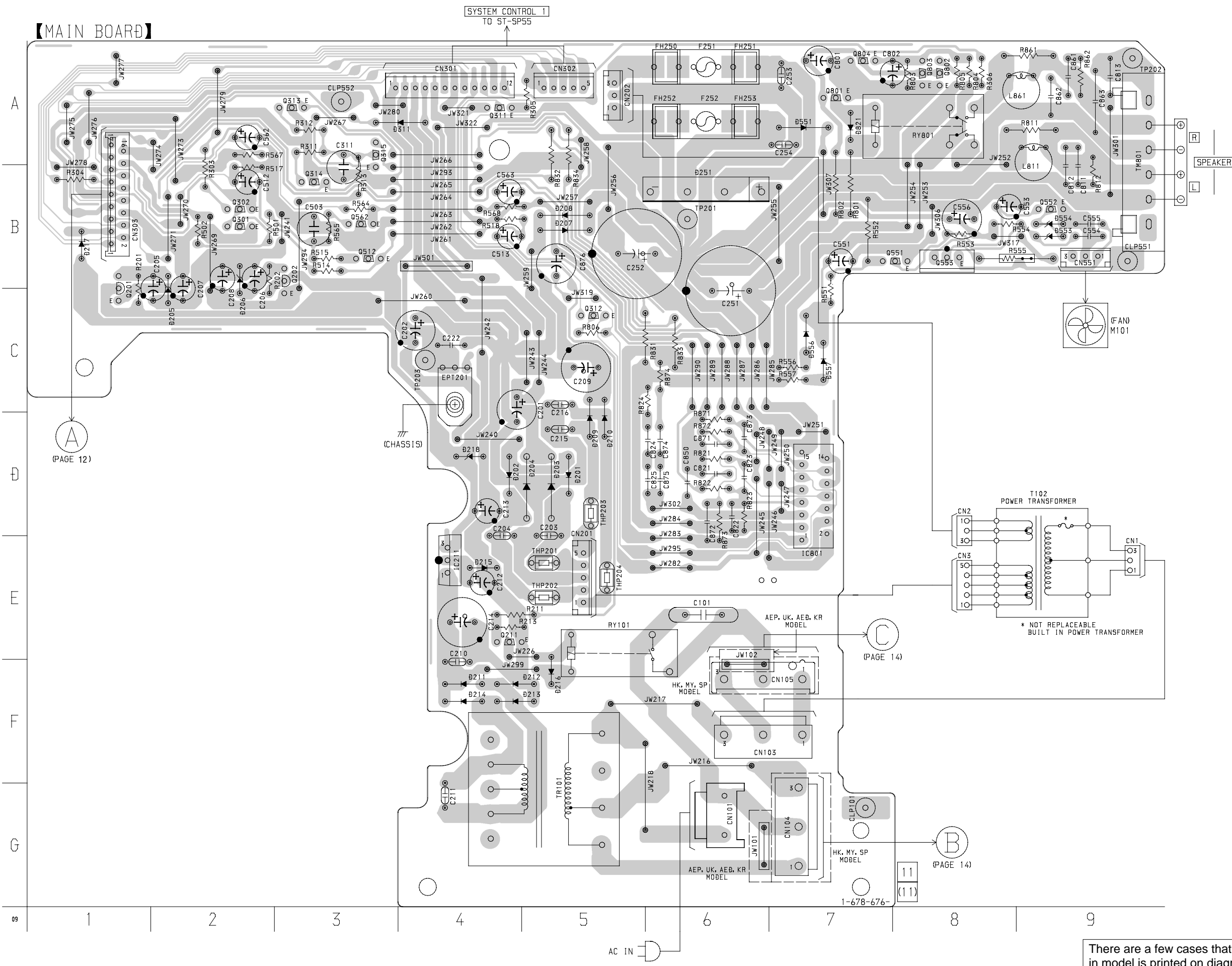


SYSTEM CONTROL 1
TO ST-SP55

09

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

4-2. PRINTED WIRING BOARD – MAIN SECTION –

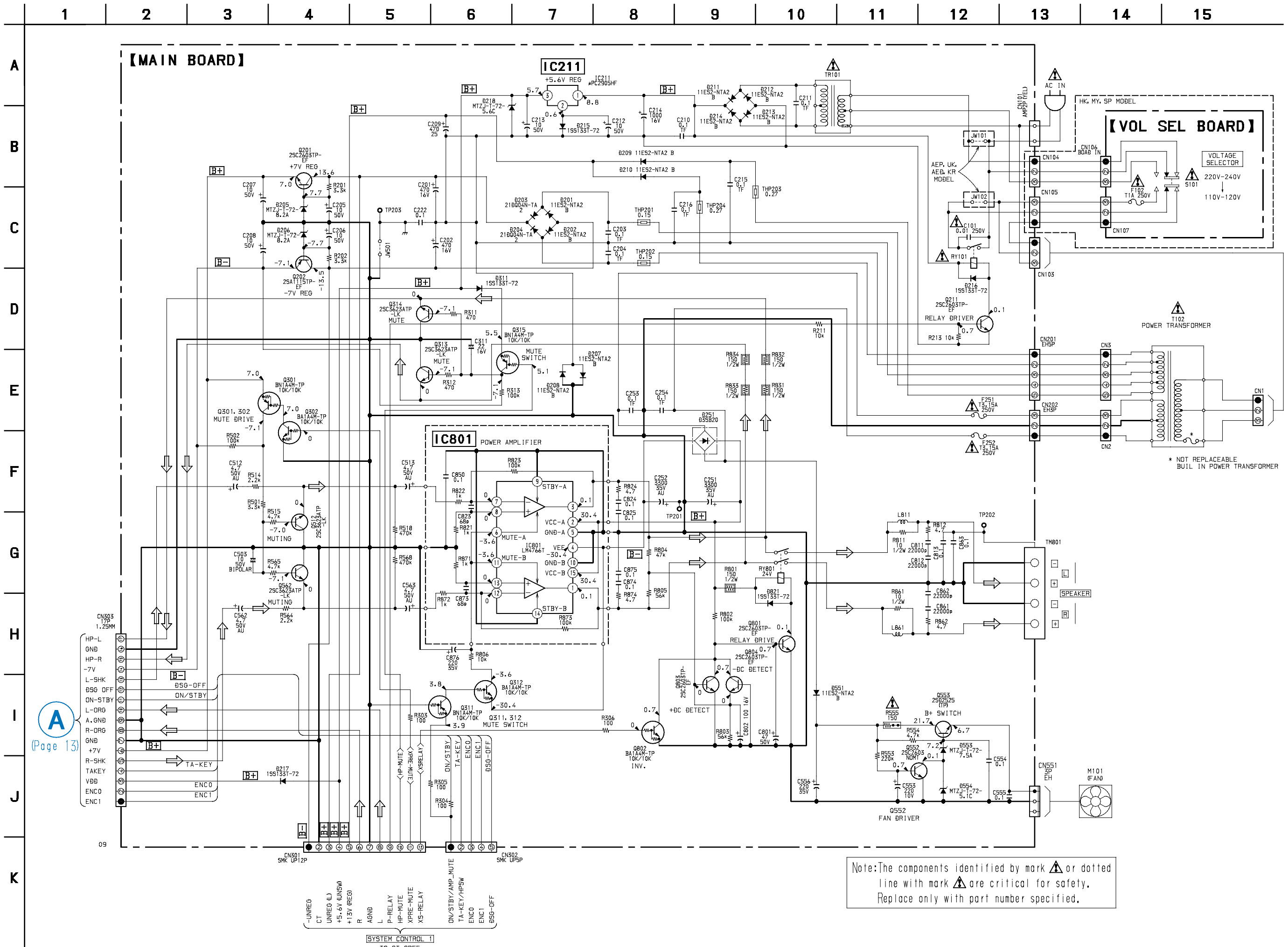


• Semiconductor Location

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-3
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 -



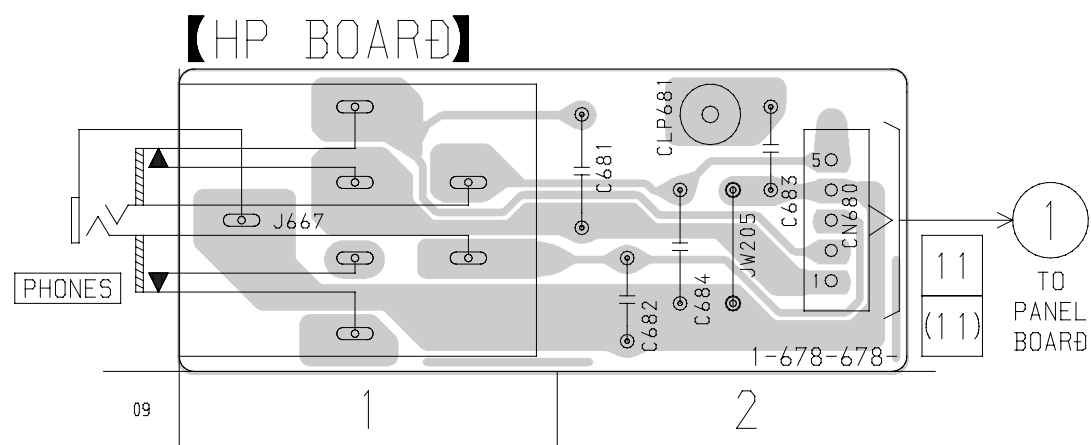
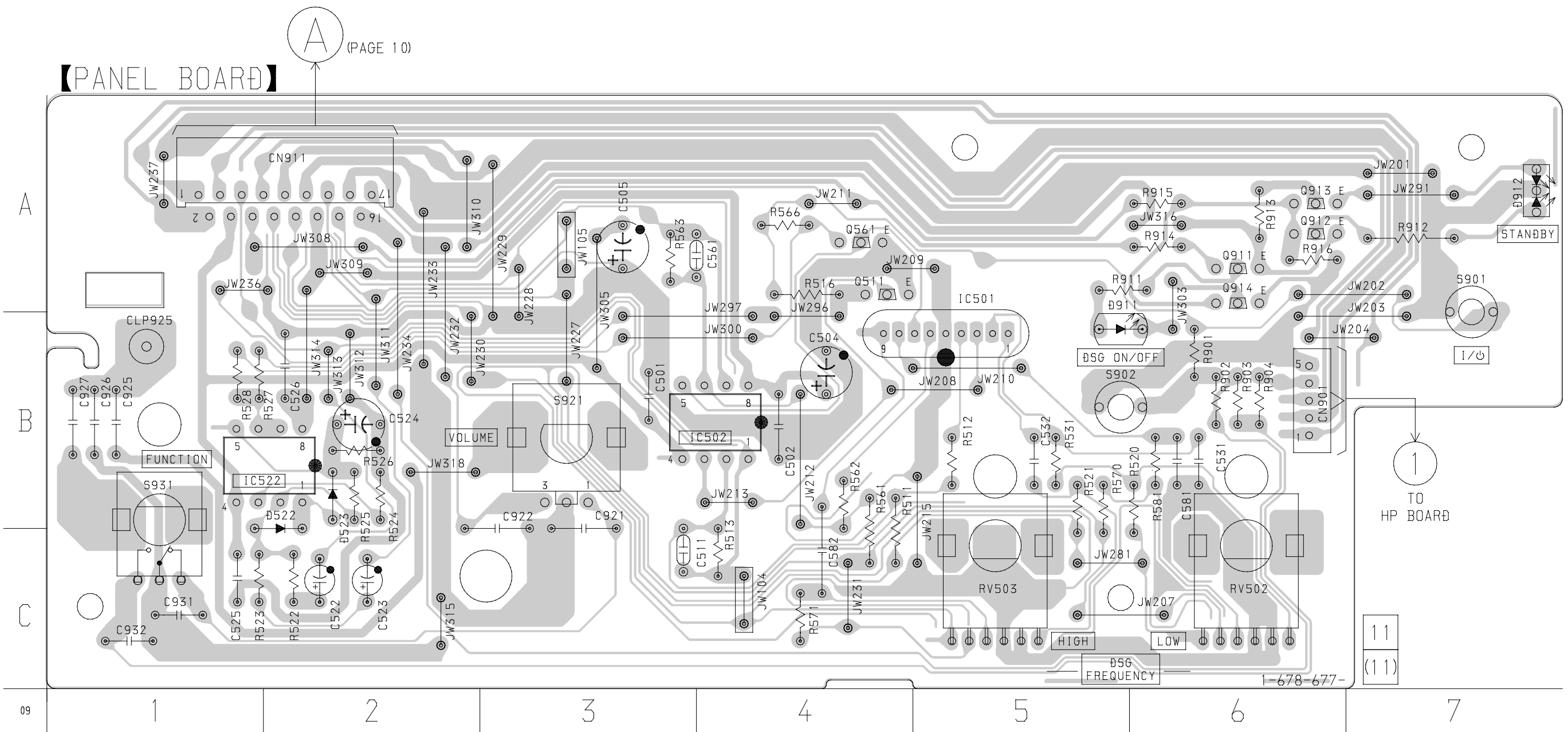
A
(Page 13)

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

UNREG
CT
UNREG L
+5.6V (UNSW)
+1.3V (REG)
R
AGND
L
P-RELAY
HP-MUTE
XPRE-MUTE
XS-RELAY
ON/STBY/AMP-MUTE
TA-KEY/HPSW
ENCO
ENC1
BSG-OFF

SYSTEM CONTROL 1
TO ST-SP55

4-4. PRINTED WIRING BOARD – PANEL SECTION –

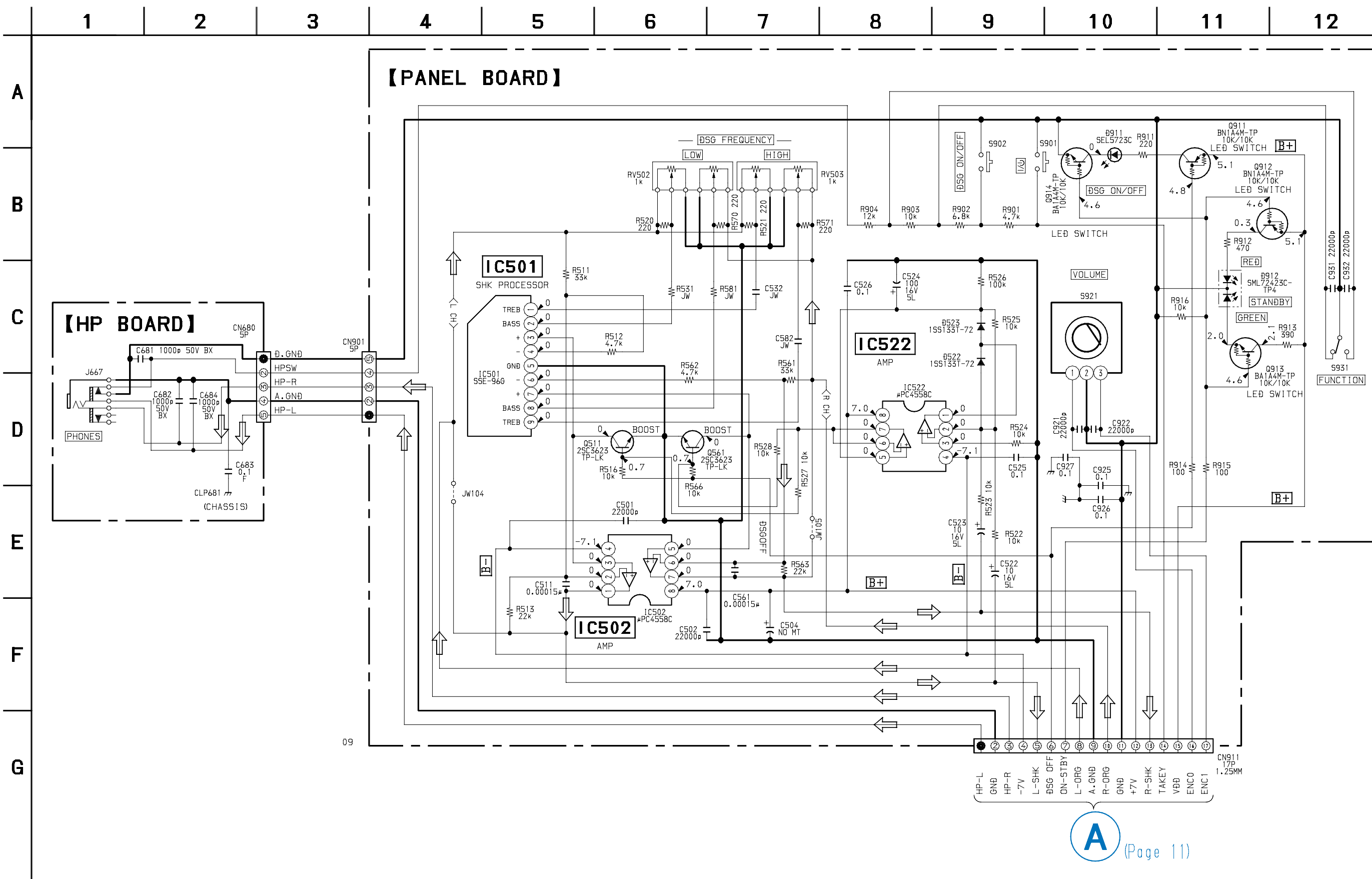


• Semiconductor Location

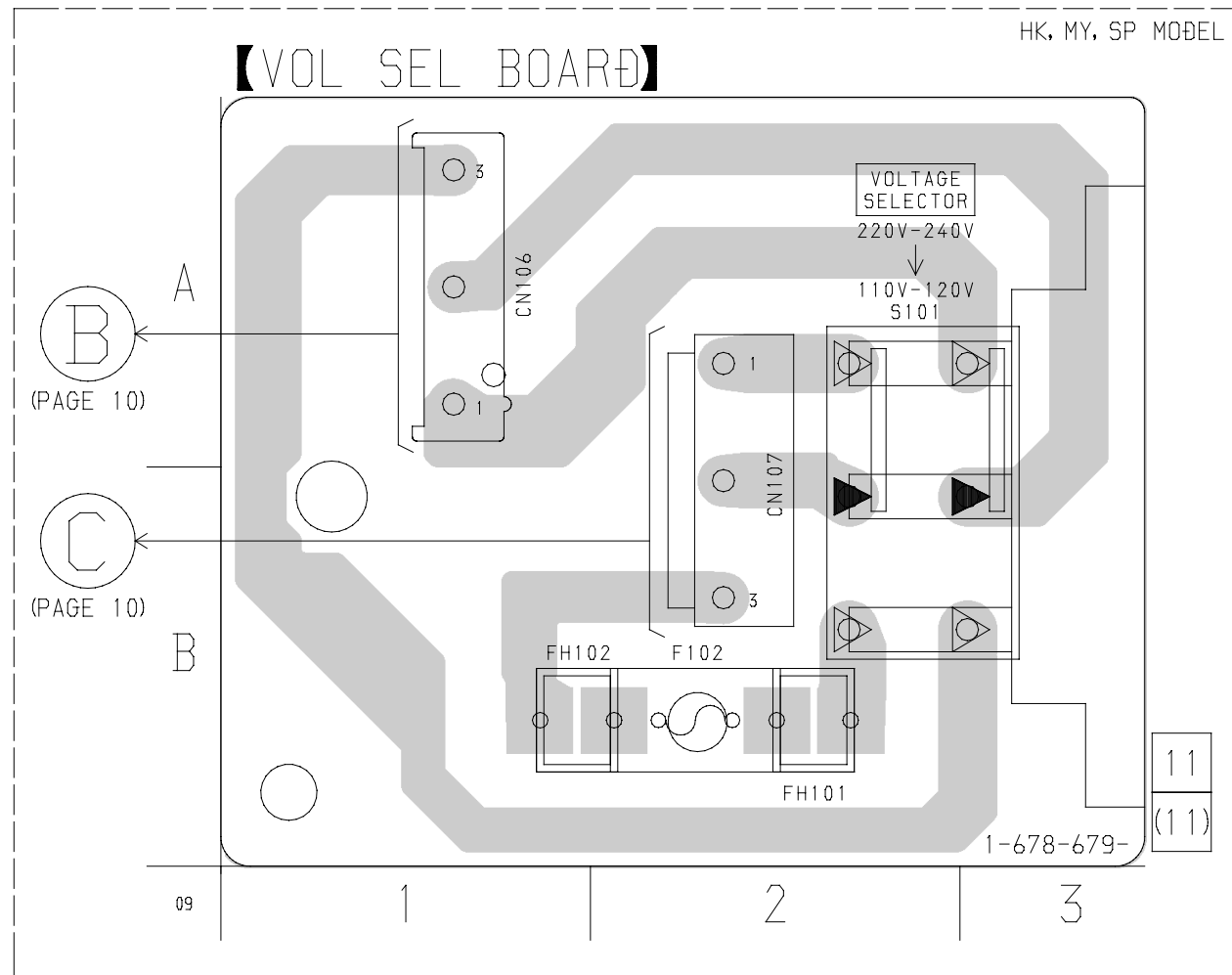
Ref. No.	Location
D522	B-2
D523	B-2
D911	B-5
D912	A-7
IC501	B-5
IC502	B-4
IC522	B-2
Q511	A-4
Q561	A-4
Q911	A-6
Q912	A-6
Q913	A-6
Q914	A-6

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 –



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

SECTION 5 EXPLODED VIEW

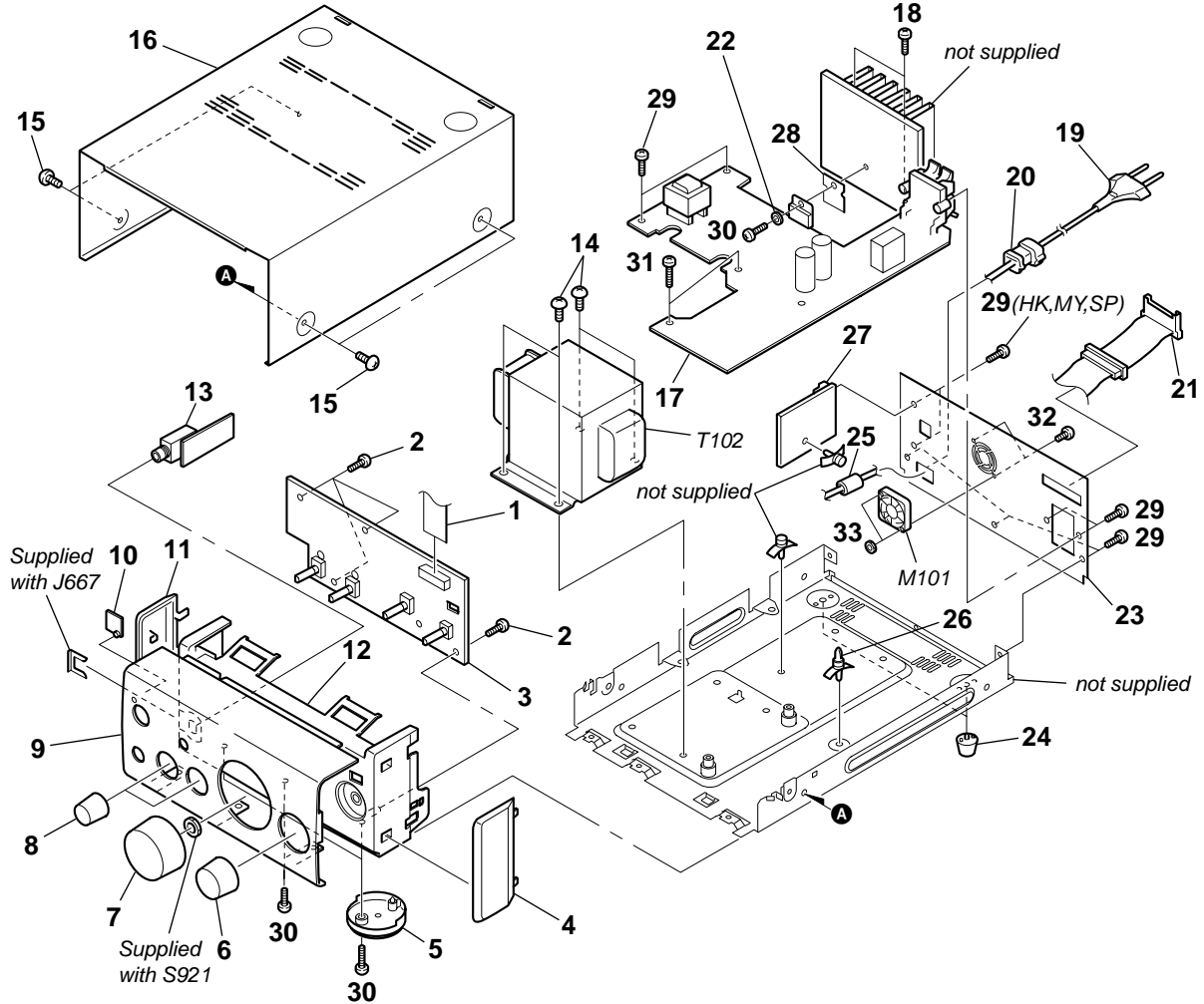
NOTE:

- 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	
17	A-4473-732-A	MAIN BOARD, COMPLETE (HK,MY,SP)		33	7-684-024-04	N 4, TYPE 2	
18	3-970-608-11	SUMITITE (B3), +BV		M101	1-698-997-21	FAN, D.C.	
\triangle 19	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 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 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 : Songapore model
HK : Hong Kong model
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
		< CAPACITOR >		C512	1-126-047-71	ELECT	4.7uF 20% 50V
C681	1-162-294-31	CERAMIC	0.001uF 10% 50V	C513	1-126-047-71	ELECT	4.7uF 20% 50V
C682	1-162-294-31	CERAMIC	0.001uF 10% 50V	C553	1-126-934-11	ELECT	220uF 20% 10V
C683	1-164-159-11	CERAMIC	0.1uF 50V	C554	1-164-159-11	CERAMIC	0.1uF 50V
C684	1-162-294-31	CERAMIC	0.001uF 10% 50V	C555	1-164-159-11	CERAMIC	0.1uF 50V
		< JACK >		C556	1-126-949-11	ELECT	220uF 20% 35V
J667	1-774-933-11	JACK (LARGE TYPE) (PHONES)		C562	1-126-047-71	ELECT	4.7uF 20% 50V
*****				C563	1-126-047-71	ELECT	4.7uF 20% 50V
A-4473-728-A	MAIN BOARD, COMPLETE (AEP,AED,UK,KR) *****			C801	1-126-967-11	ELECT	47uF 20% 50V
A-4473-732-A	MAIN BOARD, COMPLETE (HK,MY,SP) *****			C802	1-126-933-11	ELECT	100uF 20% 16V
	1-533-293-11	FUSE HOLDER		C811	1-161-494-00	CERAMIC	0.022uF 25V
*	4-374-846-21	COVER, CAPACITOR, CAP TYPE		C812	1-161-494-00	CERAMIC	0.022uF 25V
		< CAPACITOR >		C813	1-164-159-11	CERAMIC	0.1uF 50V
Δ C101	1-113-925-11	CERAMIC	0.01uF 20% 250V	C823	1-162-219-31	CERAMIC	68PF 5% 50V
C201	1-126-935-11	ELECT	470uF 20% 16V	C824	1-164-159-11	CERAMIC	0.1uF 50V
C202	1-126-935-11	ELECT	470uF 20% 16V	C825	1-164-159-11	CERAMIC	0.1uF 50V
C203	1-136-165-00	MYLAR	0.1uF 5% 50V	C850	1-164-159-11	CERAMIC	0.1uF 50V
C204	1-136-165-00	MYLAR	0.1uF 5% 50V	C861	1-161-494-00	CERAMIC	0.022uF 25V
C205	1-126-964-11	ELECT	10uF 20% 50V	C862	1-161-494-00	CERAMIC	0.022uF 25V
C206	1-126-964-11	ELECT	10uF 20% 50V	C863	1-164-159-11	CERAMIC	0.1uF 50V
C207	1-126-964-11	ELECT	10uF 20% 50V	C873	1-162-219-31	CERAMIC	68PF 5% 50V
C208	1-126-964-11	ELECT	10uF 20% 50V	C874	1-164-159-11	CERAMIC	0.1uF 50V
C209	1-126-941-11	ELECT	470uF 20% 25V	C875	1-164-159-11	CERAMIC	0.1uF 50V
C210	1-136-165-00	MYLAR	0.1uF 5% 50V	C876	1-126-949-11	ELECT	220uF 20% 35V
C211	1-136-165-00	MYLAR	0.1uF 5% 50V	< CONNECTOR >			
C212	1-126-964-11	ELECT	10uF 20% 50V	* CN101	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
C213	1-126-964-11	ELECT	10uF 20% 50V	CN103	1-564-321-00	PIN, CONNECTOR 2P (AEP,AED,UK,KR)	
C214	1-126-767-11	ELECT	1000uF 20% 16V	* CN103	1-564-687-11	PIN, CONNECTOR 3P (HK,MY,SP)	
C215	1-136-165-00	MYLAR	0.1uF 5% 50V	* CN104	1-564-687-11	PIN, CONNECTOR 3P (HK,MY,SP)	
C216	1-136-165-00	MYLAR	0.1uF 5% 50V	* CN201	1-564-508-11	PLUG, CONNECTOR 5P	
C222	1-164-159-11	CERAMIC	0.1uF 50V	CN202	1-564-506-11	PLUG, CONNECTOR 3P	
C251	1-126-042-11	ELECT	3300uF 20% 35V	CN301	1-794-568-11	PIN, CONNECTOR 12P	
C252	1-126-042-11	ELECT	3300uF 20% 35V	CN302	1-794-569-11	PIN, CONNECTOR 5P	
C253	1-136-165-00	MYLAR	0.1uF 5% 50V	CN303	1-784-778-11	CONNECTOR, FFC 17P	
C254	1-136-165-00	MYLAR	0.1uF 5% 50V	CN551	1-564-506-11	PLUG, CONNECTOR 3P	
C311	1-107-715-11	ELECT	22uF 20% 16V	< DIODE >			
				D201	8-719-024-99	DIODE 11ES2-NTA2B	
				D202	8-719-024-99	DIODE 11ES2-NTA2B	
				D203	8-719-975-85	DIODE 21DQ04N-TA2	
				D204	8-719-975-85	DIODE 21DQ04N-TA2	
				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 >		R801	1-260-089-11	CARBON 150 5%	1/2W
EPT201	1-537-770-21	TERMINAL BOARD, GROUND		R802	1-249-441-11	CARBON 100K 5%	1/4W
		< FUSE >		R803	1-249-438-11	CARBON 56K 5%	1/4W
△ F251	1-532-465-31	FUSE T3.15AL/250V		R804	1-249-437-11	CARBON 47K 5%	1/4W
△ F252	1-532-465-31	FUSE T3.15AL/250V		R805	1-249-438-11	CARBON 56K 5%	1/4W
		< IC >		R806	1-249-429-11	CARBON 10K 5%	1/4W
IC211	8-759-647-11	IC uPC2905HF		R811	1-260-076-11	CARBON 10 5%	1/2W
IC801	8-759-681-35	IC LM4766T		R812	1-249-389-11	CARBON 4.7 5%	1/4W F
		< COIL >		R821	1-249-417-11	CARBON 1K 5%	1/4W F
L811	1-420-872-00	COIL, AIR-CORE		R822	1-249-417-11	CARBON 1K 5%	1/4W F
L861	1-420-872-00	COIL, AIR-CORE		R823	1-249-441-11	CARBON 100K 5%	1/4W
		< TRANSISTOR >		R824	1-249-389-11	CARBON 4.7 5%	1/4W F
Q201	8-729-620-05	TRANSISTOR 2SC2603TP-EF		R831	1-260-089-11	CARBON 150 5%	1/2W
Q202	8-729-119-76	TRANSISTOR 2SA1115TP-EF		R832	1-260-089-11	CARBON 150 5%	1/2W
Q211	8-729-620-05	TRANSISTOR 2SC2603TP-EF		R833	1-260-089-11	CARBON 150 5%	1/2W
Q301	8-729-422-57	TRANSISTOR BN1A4M-TP		R834	1-260-089-11	CARBON 150 5%	1/2W
Q302	8-729-900-80	TRANSISTOR BA1A4M-TP		R861	1-260-076-11	CARBON 10 5%	1/2W
Q311	8-729-422-57	TRANSISTOR BN1A4M-TP		R862	1-249-389-11	CARBON 4.7 5%	1/4W F
Q312	8-729-900-80	TRANSISTOR BA1A4M-TP				< RELAY >	
Q313	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		RY101	1-755-276-11	RELAY, POWER	
Q314	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		RY801	1-515-920-11	RELAY (24V)	
Q315	8-729-422-57	TRANSISTOR BN1A4M-TP				< THERMISTOR(POSITIVE) >	
Q512	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		THP201	1-804-233-21	THERMISTOR, POSITIVE	
Q552	8-729-620-05	TRANSISTOR 2SC2603TP-EF		THP202	1-804-233-21	THERMISTOR, POSITIVE	
Q553	8-729-026-68	TRANSISTOR 2SD2525(TP)		THP203	1-804-234-21	THERMISTOR, POSITIVE	
Q562	8-729-141-30	TRANSISTOR 2SC3623ATP-LK		THP204	1-804-234-21	THERMISTOR, POSITIVE	
Q801	8-729-620-05	TRANSISTOR 2SC2603TP-EF				< TERMINAL >	
Q802	8-729-900-80	TRANSISTOR BA1A4M-TP		TM801	1-694-677-11	TERMINAL BOARD (4P) (SPEAKERS)	
Q803	8-729-620-05	TRANSISTOR 2SC2603TP-EF					
Q804	8-729-620-05	TRANSISTOR 2SC2603TP-EF					
		< RESISTOR >					
R201	1-247-843-11	CARBON 3.3K	5%	1/4W			
R202	1-247-843-11	CARBON 3.3K	5%	1/4W			
R211	1-249-429-11	CARBON 10K	5%	1/4W			

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

MAIN

PANEL

VOL SEL

Ref. No.	Part No.	Description	Remarks
< POWER TRANSFORMER >			
△ TR101	1-435-624-11	TRANSFORMER, POWER (AEP,AED,UK,KR)	
△ TR101	1-435-625-11	TRANSFORMER, POWER (HK,MY,SP)	

	1-678-677-11	PANEL BOARD	

< CAPACITOR >			
C501	1-161-494-00	CERAMIC 0.022uF	25V
C502	1-161-494-00	CERAMIC 0.022uF	25V
C511	1-110-337-51	MYLAR 150PF 5%	50V
C522	1-126-157-11	ELECT 10uF 20%	16V
C523	1-126-157-11	ELECT 10uF 20%	16V
C524	1-126-933-11	ELECT 100uF 20%	16V
C525	1-164-159-11	CERAMIC 0.1uF	50V
C526	1-164-159-11	CERAMIC 0.1uF	50V
C561	1-110-337-51	MYLAR 150PF 5%	50V
C921	1-161-494-00	CERAMIC 0.022uF	25V
C922	1-161-494-00	CERAMIC 0.022uF	25V
C925	1-164-159-11	CERAMIC 0.1uF	50V
C926	1-164-159-11	CERAMIC 0.1uF	50V
C927	1-164-159-11	CERAMIC 0.1uF	50V
C931	1-161-494-00	CERAMIC 0.022uF	25V
C932	1-161-494-00	CERAMIC 0.022uF	25V
< LEAD >			
* CLP925	1-690-880-31	LEAD (WITH CONNECTOR)	
< CONNECTOR >			
CN911	1-784-739-11	CONNECTOR, FFC 17P	
< DIODE >			
D522	8-719-911-19	DIODE 1SS133T-72	
D523	8-719-911-19	DIODE 1SS133T-72	
D911	8-719-071-42	DIODE SEL5723C-TP15 (DSG ON/OFF)	
D912	8-719-056-11	DIODE SML72423C-TP15 (STANDBY)	
< IC >			
IC501	8-749-015-28	IC SSE-96G	
IC502	8-759-705-58	IC NJM4558D-D	
IC522	8-759-705-58	IC NJM4558D-D	
< TRANSISTOR >			
Q511	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q561	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q911	8-729-422-57	TRANSISTOR BN1A4M-TP	
Q912	8-729-422-57	TRANSISTOR BN1A4M-TP	
Q913	8-729-900-80	TRANSISTOR BA1A4M-TP	
Q914	8-729-900-80	TRANSISTOR BA1A4M-TP	
< RESISTOR >			
R511	1-249-435-11	CARBON 33K 5%	1/4W
R512	1-249-425-11	CARBON 4.7K 5%	1/4W F
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

Ref. No.	Part No.	Description	Remarks
R522	1-249-429-11	CARBON 10K 5%	1/4W
R523	1-249-429-11	CARBON 10K 5%	1/4W
R524	1-249-429-11	CARBON 10K 5%	1/4W
R525	1-249-429-11	CARBON 10K 5%	1/4W
R526	1-249-441-11	CARBON 100K 5%	1/4W
R527	1-249-429-11	CARBON 10K 5%	1/4W
R528	1-249-429-11	CARBON 10K 5%	1/4W
R561	1-249-435-11	CARBON 33K 5%	1/4W
R562	1-249-425-11	CARBON 4.7K 5%	1/4W F
R563	1-249-433-11	CARBON 22K 5%	1/4W
R566	1-249-429-11	CARBON 10K 5%	1/4W
R570	1-249-409-11	CARBON 220 5%	1/4W F
R571	1-249-409-11	CARBON 220 5%	1/4W F
R901	1-249-425-11	CARBON 4.7K 5%	1/4W F
R902	1-249-427-11	CARBON 6.8K 5%	1/4W F
R903	1-249-429-11	CARBON 10K 5%	1/4W
R904	1-249-430-11	CARBON 12K 5%	1/4W
R911	1-249-409-11	CARBON 220 5%	1/4W F
R912	1-249-413-11	CARBON 470 5%	1/4W F
R913	1-249-412-11	CARBON 390 5%	1/4W F
R914	1-247-807-31	CARBON 100 5%	1/4W
R915	1-247-807-31	CARBON 100 5%	1/4W
R916	1-249-429-11	CARBON 10K 5%	1/4W
< VARIABLE RESISTOR >			
RV502	1-227-202-11	RES, VAR 1K (DSG FREQ. LOW)	
RV503	1-227-202-11	RES, VAR 1K (DSG FREQ. HIGH)	
< SWITCH >			
S901	1-771-410-21	SWITCH, TACTILE (I/⏏)	
S902	1-771-410-21	SWITCH, TACTILE (DSG ON/OFF)	
S921	1-476-087-11	ENCODER, ROTARY (VOLUME)	
S931	1-771-963-11	SWITCH (FUNCTION)	

	1-678-679-11	VOL SEL BOARD (HK,MY,SP)	

	1-533-293-11	FUSE HOLDER (HK,MY,SP)	
< CONNECTOR >			
* CN107	1-564-687-11	PIN, CONNECTOR 3P (HK,MY,SP)	
< FUSE >			
△ F102	1-532-463-31	FUSE 1A/250V (HK,MY,SP) (HK,MY,SP)	
< SWITCH >			
△ S101	1-571-309-11	SWITCH (VOLTAGE SELECTOR) (HK,MY,SP)	

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<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)	

