

ONKYO® SERVICE MANUAL

Integrated Stereo Amplifier MODEL A-9211



Black and Silver models

BMP/SMP/SMPT	230V AC, 50Hz
BMWT	120/220V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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ONKYO®
AUDIO COMPONENTS

SPECIFICATIONS

Power output:	40 watts per channel, min RMS, at 8 ohms, both channels driven from 20Hz to 20 kHz, with no more than 0.08% THD. 2×60 watts at 4 ohms, 1 kHz (DIN) 2×45 watts at 8 ohms, 1 kHz (DIN)
Total Harmonic Distortion:	0.08% at rated power
IM Distortion:	0.1% at rated power
Damping Factor:	60 at 8 ohms
Frequency response:	15 Hz – 50kHz ± 1dB
Input sensitivity/impedance	
Phono:	2.5 mV/50 kohms
Tuner/CD/Line:	150 mV/25 kohms
Tape Play:	150 mV/25 kohms
Output sensitivity/impedance	
Tape Rec:	150 mV/25 kohms (phono)
Phono overload:	130 mV RMS at 1 kHz, 0.1% THD (REC)
Bass control:	±8 dB at 100 Hz
Treble control:	±8 dB at 10 kHz
Loudness control:	+8 dB at 100 Hz +2 dB at 10 kHz
Signal to noise ratio (IHF-A)	
Phono:	80 dB (5 mV input)
Direct:	102 dB (0.5 V input)(CD)
Muting:	-50 dB

General

Power supply:	AC 230V, 50Hz AC 120 V and 220-230V switchable, 50 Hz/60 Hz
Dimensions (W × H × D):	453 × 120 × 331mm 17-1/8" × 4-3/4" × 13-1/16"
Weight:	6.7 kg, 14.8 lbs.

Remote control RC-286S

Transmitter:	Infrared
Signal range:	Approx. 5 meters, 16ft
Power supply:	Two "AA" batteries (1.5 V × 2)
Dimensions (W × H × D):	55 × 18 × 194mm 2-3/16" × 11/16" × 7-5/8"
Weight:	100 grams, 3.5 oz. (including batteries)

Specifications and features are subject to change without notice.

ADJUSTMENT PROCEDURES

Adjustments and Checking the Protection Circuitry

1. Preparations

- 1) Place the unit on the workbench. (There should be about 15 mm of space between the base plate of the unit and the work surface.)
- 2) Set up the unit as follows.
 - (1) No load
 - (2) No signal
 - (3) Volume turned all the way down
 - (4) Speaker switch OFF
 - (5) Power switch OFF

Note) Check the following points before making adjustments

- (1) The power switch should be OFF.
- (2) The interior of the unit should not be warm.

2. Idling current adjustment

- 1) Turn the power switch ON.

Test point	Adjustment	
P505 on the NAAF-6038 circuit board	R539	0.15 ~ 0.25mV
P506 on the NAAF-6038 circuit board	R540	0.15 ~ 0.25mV

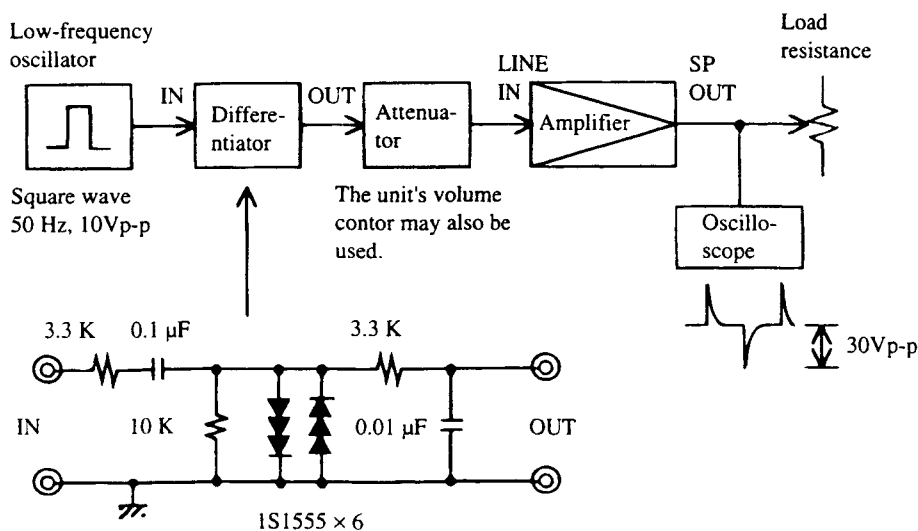
- 2) Set the voltage by R539, R540 after 4 ~ 6 minutes heat running with cover as follows.

Test point	Adjustment	
P505 on the NAAF-6038 circuit board under 2.5 mV 2.5 mV ~ 4.5 mV over 4.5 mV	R539	3mV Leave it as it is. 4 mV
P506 on the NAAF-6038 circuit board under 2.5 mV 2.5 mV ~ 4.5 mV over 4.5 mV	R540	3mV Leave it as it is. 4 mV

NOTE: Please set Cover during warming up. This model has so sensitiveness by the around temperature.

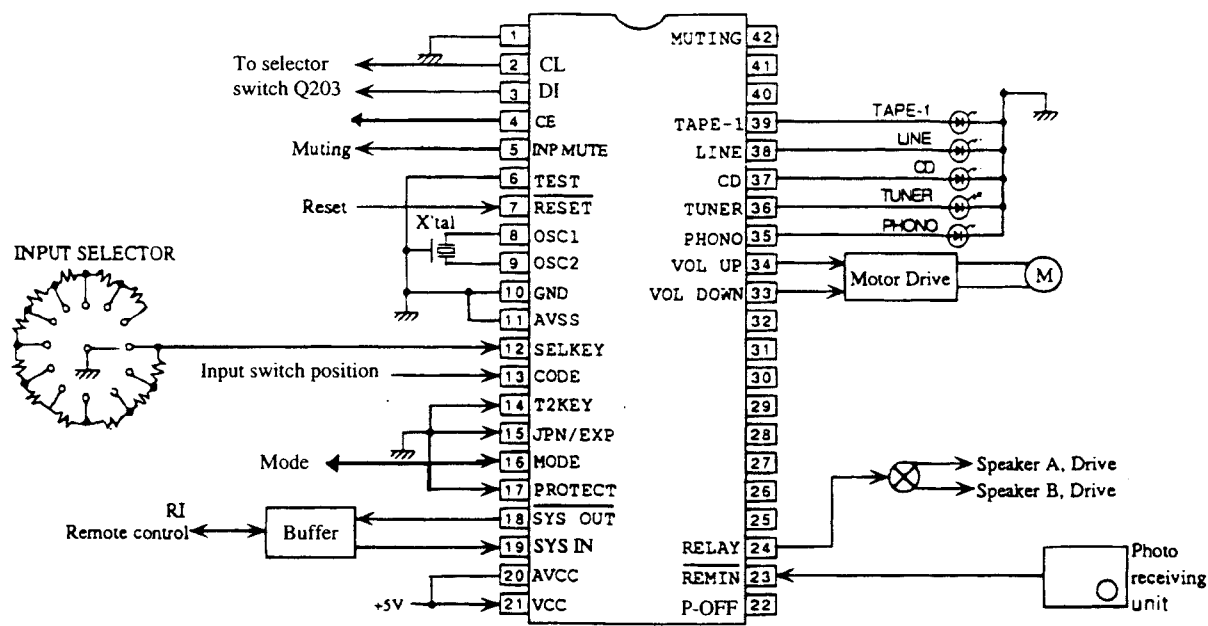
3. Check of operation of protection circuitry

- 1) Check of operation of muting.
 - (1) Confirm that muting OFF approximately 5 seconds after the power switch is turned ON.
 - (2) Muting should turn OFF approximately 0.1 seconds after selector switch is changed.
- 2) Confirmation of protection circuit.
 - (1) Signal input from the circuit illustrated below with no load.
 - (2) Confirm that speaker muting does not turn ON even when a 2 ohm load is connected when a peak value of 30Vp-p is output.
 - (3) Next, confirm that when a 1 ohm load is connected speaker muting switches ON and OFF a couple of times.



IC BLOCK DIAGRAM

HD404314A33S

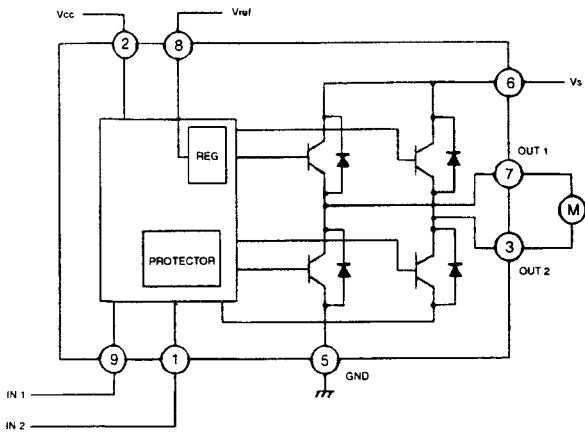


HD404314

Pin No.	CODE	FUNCTION	I/O	DESCRIPTION
1	RA1/Vdisp	-----	-----	Not used, To be connected with GND.
2	R00/SCK	CL	OUT	Output terminal for Input selector.
3	R01/SI	D1		
4	R02/SO	CE	-----	
5	R03/TOC	INP MUTE	OUT	Muting output terminal. Active "H".
6	TEST	TEST	-----	Shipment Test. To be connected with GND.
7	RESET	RESET	IN	Input terminal for Reset signal. Active "L"
8	OSC1	Xtal	-----	Terminal for connecting with Ceramic oscillator (4MHz)
9	OSC2	Xtal	-----	
10	GND	GND	-----	Ground terminal
11	AVss	AVss	-----	Ground terminal of A/D converter
12	R30/AN0	SELKEY	IN	Input terminal for when changing over Input Selector. Through A/D conversion, the selector will be detector on its right or left rotation.
13	R31/AN1	CODE	IN	Code input terminal for detecting position of Rotary switch of Motor drive.
14	R32/AN2	T-2KEY	IN	Tape-2 Key entry terminal.
15	R33/AN3	JPN/EXP	IN	Input terminal for change-over between Japan model and Export model.

Pin No.	CODE	FUNCTION	I / O	DESCRIPTION															
16	R40/AN4	MODE	IN	Input terminal for initialization to change over operation mode.															
17	R41/AN5	PROTECT	IN	Input terminal for detecting protect operation. To be connected with GND.															
18	R42/AN6	SYS OUT	OUT	Output terminal for System Code.															
19	R43/AN7	SYS IN	IN	Input terminal for System Code.															
20	AVcc	AVcc	-----	Analog reference voltage for A/D conversion.															
21	Vcc	+5V	-----	Power(+5V) terminal .															
22	D0/INT0	POFF	IN	Input terminal for Detecting Power suspension. However, "L" 100 μ S or under shall be ignored.															
23	D1/INT1	REMIN	IN	Remote control signal input terminal															
24	D2/EVENB	RELAY	OUT	Output terminal for controlling relay. "H" when ON.															
25	D3/BUZZ	PLAYER	OUT	Not used															
26	D4/STOPC	-----	-----	Not used															
27	D5																		
28	D6																		
29	D7																		
30	D8																		
31	R80																		
32	R81																		
33	R81	VOL DOWN	OUT	UP / DOWN output terminal for Volume. Active "H".															
34	R83	VOL UP																	
				<table><tr><td>OPERATION</td><td>VOL UP</td><td>VOL DOWN</td></tr><tr><td>STOP</td><td>H</td><td>H</td></tr><tr><td>VOL UP</td><td>H</td><td>L</td></tr><tr><td>VOL DOWN</td><td>L</td><td>H</td></tr><tr><td>POWER OFF</td><td>L</td><td>L</td></tr></table>	OPERATION	VOL UP	VOL DOWN	STOP	H	H	VOL UP	H	L	VOL DOWN	L	H	POWER OFF	L	L
OPERATION	VOL UP	VOL DOWN																	
STOP	H	H																	
VOL UP	H	L																	
VOL DOWN	L	H																	
POWER OFF	L	L																	
				POWER ON															
35	R10	PHONO	OUT		Output terminal for Input selector LED. Active "H".														
36	R11	TUNER																	
37	R12	CD																	
38	R13	LINE																	
39	R20	TAPE-1																	
40	R21	-----	-----	Not used															
41	R22	-----	-----	Not used															
42	R23	MUTING	OUT	Output terminal for Audio muting LED, Remote control															

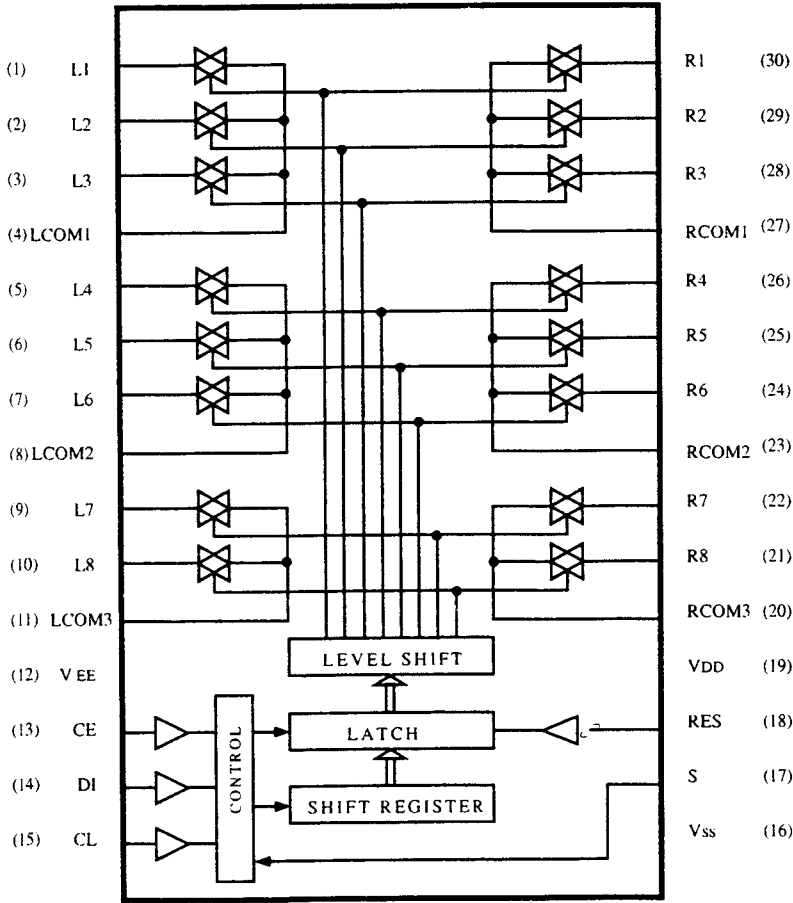
2702
A7291S (Volume Motor Drive)



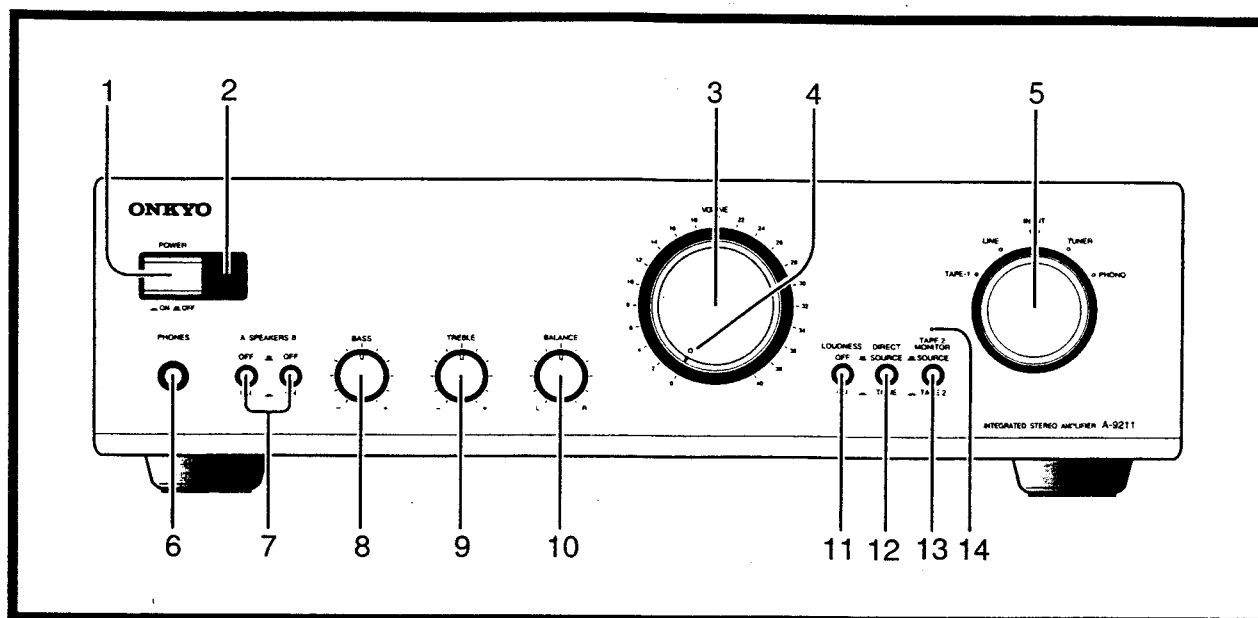
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW:Counter clockwise direction
CW:Clockwise direction

203
C7822N

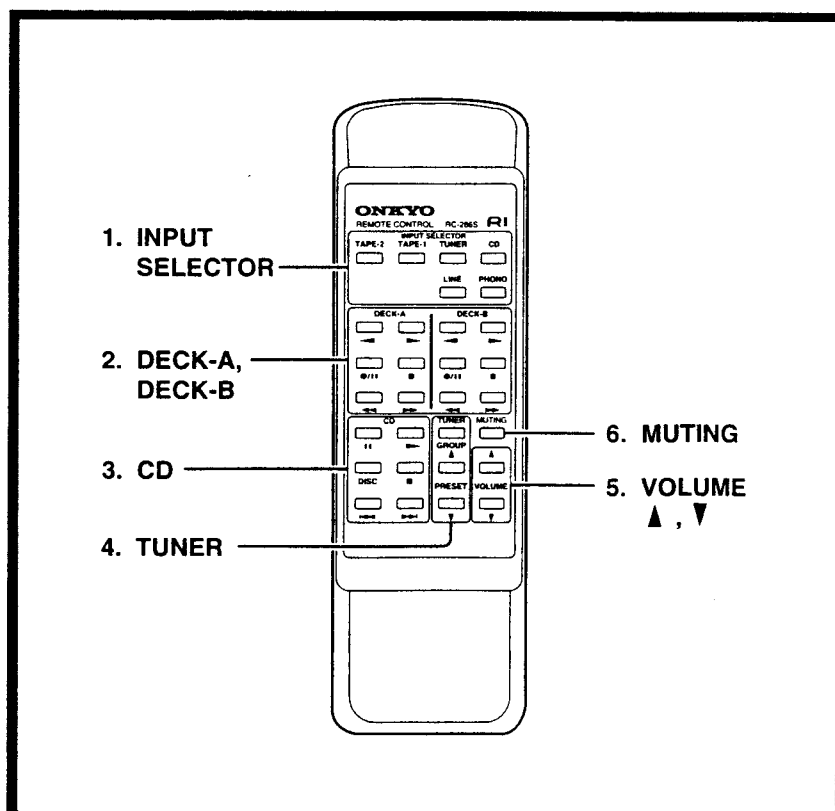


Control positions and names



Front panel

1. Power switch
2. Remote control sensor
3. Volume control knob
4. Muting indicator
5. Input selector knob and indicator
6. Headphone jack
7. Speaker selector switches
8. Bass control knob
9. Treble control knob
10. Balance control knob
11. Loudness switch
12. Direct switch
13. Tape-2 Monitor switch
14. Tape-2 Monitor indicator



Remote control

1. Input selector buttons
2. Tape operation buttons
 - ◀ : Reverse play button
 - ▶ : Forward play button
 - /|| : Record/pause button
 - : Stop button
 - ⏮ : Fast rewind button
 - ⏭ : Fast forward button
3. CD operation buttons
 - || : Pause button
 - ▶ : Play button
 - DISC : Disc button for CD changer
 - : Stop button
 - ⏮ : Down button
 - ⏭ : Up button
4. Tuner operation buttons
 - GROUP : Group or class selector button
 - PRESET : Preset memory
 - ▲ (up)/ ▼ (down) buttons
5. Volume control buttons
6. Audio muting button

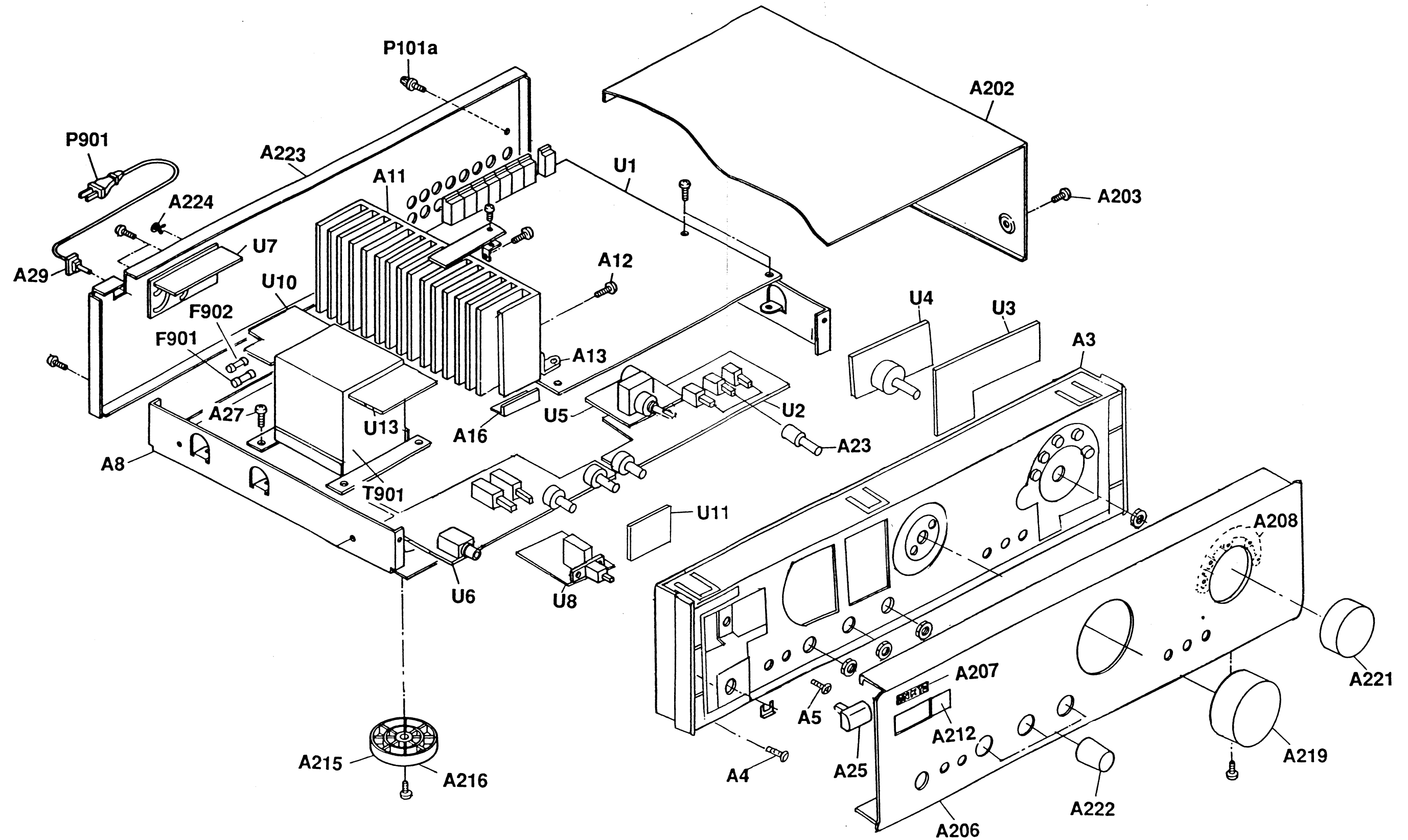
CHASSIS-EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
A3	27110995	Front bracket 	F902	252073	⚠ 1.6A-SE-EAK, Fuse <P>
	27110996	Front bracket <S>		252074Y	⚠ 2A-SE-EAK, Fuse <PT>
A4	838130088	3TTB+8B, Screw		252074Y	⚠ 2A-SE-EAK, Fuse <WT>
A5	838430107	3TTB+10S(BC), Screw	P101a	25060044	3*14, TRM
A8	27100331Y	Chassis	P901	253193HITY	AS-CEE, AC Cord <P,PT>
A9	27190511	Holder,KGLP-15RF		253233KAW	AS-CEE-2, AC Cord <WT>
A11	27160383Y	Radiation	Q519,Q520	2202104Y	2SC3423-Y, Transistor
A12	801433	3SMS8W.SW+14B, Screw(BC)	Q531,Q532	2203043Y	2SC5197-O, Transistor
A13	27141530AY	Retainer (HS-2)	Q533,Q534	2203033Y	2SA1940-O, Transistor
A16	27141671Y	Retainer		223024Y	AC238, Isolation sheet
A23	283253274Y	Knob (push) 	U1	1A751538-1Y	Main circuit pc board ass'y (NAAF-6038-1)
	283253275Y	Knob (push) <S>			
A25	28325465Y	Knob (Pow) 	U2	1A751539-1AY	Control circuit pc board (NAETC-6039-1A) <P,PT>
	28325466Y	Knob (Pow) <S>			
A27	830440089Y	4TTC+8C(BC), Screw	U2	1A751539-1BY	Control circuit pc board (NAETC-6039-1B) <WT>
A29	27300750	⚠ Cord bushing, #2271			
A202	28184688Y	Top cover 	U3	1A751540-1AY	LED p.c. board (NALED-6040-1A) <P,PT>
	28184689Y	Top cover <S>			
A203	838230088Y	3TTB+8B(NI),Screw <S>	U3	1A751540-1BY	LED p.c. board (NALED-6040-1B) <WT>
A206	27211911A	Front panel 			
	27211912A	Front panel <S>	U4	1A751541-1AY	Encoder pc board (NASW-6041-1A) <P,PT>
A207	28135244Y	Badge 			
	28135245Y	Badge <S>	U4	1A751541-1BY	Encoder pc board (NASW-6041-1B) <WT>
A208	28198861Y	Facet (SEL)			
A212	28191765Y	Clear plate	U5	1A751542-1AY	Volume circuit pc board (NAETC-6042-1A) <P,PT>
A215	27175316B	Leg			
A216	28141332	Cushion t=1.6x30x16	U5	1A751542-1BY	Volume circuit pc board (NAETC-6042-1B) <WT>
A219	28325469	Knob (VOL) AS 			
	28325470	Knob (VOL) AS <S>	U6	1A751543-1AY	Tone circuit pc board (NAETC-6043-1A) <P,PT>
A221	28325476	Knob (TUN) 			
	28325477	Knob (TUN) <S>	U6	1A751543-1BY	Tone circuit pc board (NAETC-6043-1B) <WT>
A222	28325405Y	Knob (TONE) 			
	28325474Y	Knob (TONE) <S>	U7	1A751544-1AY	Speaker terminal pc board (NAETC-6044-1A) <P,PT>
A223	27122346Y	Rear panel <P>			
	27122347Y	Rear panel <WT>	U7	1A751544-1BY	Speaker terminal pc board (NAETC-6044-1B) <WT>
	27122348Y	Rear panel <PT>			
A224	880025-1Y	NRP-345, Plastic rivet <P,PT>	U8	1A751545-1AY	Power switch pc board (NASW-6045-1A) <P,PT>
D901	22380022Y or	RBV402 or			
	22380285	RS403M, Diode	U8	1A751545-1BY	Power switch pc board (NASW-6045-1B) <WT>
T901	2301255Y	⚠ NPT-1293P, Power transformer <P,PT>	U10	1A751547-1AY	Primary pc board (NAPS-6047-1A) <P,PT>
	2301256Y	⚠ NPT-1293DG, Power transformer <WT>			
			U10	1A751547-1BY	Primary pc board (NAPS-6047-1B) <WT>
F901	252151Y or	⚠ 4A-TSC, Fuse <WT>			
	252163		U11	1A751548-1AY	Remote sensor pc board (NAETC-6048-1A) <P,PT>
			U11	1A751548-1BY	Remote sensor pc board (NAETC-6048-1B) <WT>
			U12	1A751549-1AY	Voltage selector pc board (NAETC-6049) <P,PT>
			U12	1A751549-1BY	Voltage selector pc board (NAETC-6049-1B) <WT>

NOTE: Black color model only
<S> Silver color model only
<P> 230V model only
<WT> Taiwanes model only
<PT> Asian model only

NOTE: THE COMPONENTS INENTIFIED BY MARK
⚠ ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.

CHASSIS-EXPLODED VIEW



PRINTED CIRCUIT BOARD PARTS LIST

U1 MAIN CIRCUIT PC BOARD (NAAF-6038)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q101	222502	NJM4558D-X
Q203	22240270	LC7822N
Q701	22240788	HD404314A33
Q702	22240239	TA7291S
Q901	222780565JRC	NJM78M56FA
Transistors		
Q301,Q302	2213631	RN1241-A
Q501-Q504	2211733 or	2SC1845-E or
	2211732	2SC1845-F
Q505-Q508	2213284	2SC1740S-R
Q509-Q514	2211353 or	2SA949-O or
	2211354	2SA949-Y
Q515-Q518	2211633 or	2SC2229-O or
	2211634	2SC2229-Y
Q519,Q520	2202104	2SC3423-Y
Q521,Q522	2213284	2SC1740S-R
Q523,Q524	2211633 or	2SC2229-O or
	2211634	2SC2229-Y
Q525,Q526	2211353 or	2SA949-O or
	2211354	2SA949-Y
Q527,Q528	2203010	2SC5171
Q529,Q530	2203000	2SA1930
Q531,Q532	2203043	2SC5197-O
Q533,Q534	2203033	2SA1940-O
Q536	2211792	2SA992-F
Q537,Q538	2211733 or	2SC1845-E or
	2211732	2SC1845-F
Q541-Q543	2213284	2SC1740S-R
	2213354	2SA933S-R
Q544	2213354	2SA933S-R
Q703,Q704,Q706	2213290	DTC114ES
Q705	2213160	DTC124ES
Q707	2212600T	DTA124ES
Q708,Q709	2213510T	DTA114ES
Q902	2215163	2SD667A-C
Q903	2215173	2SB647A-C
Diodes		
D501-D503, D702-D711	223163	1SS133
D712	224470562	MTZJ5.6B, Zener
D713	223163	1SS133
D901	22380022	RBV402
D902-D907	22380260 or	RL1N4003 or
	22380032	1SR139-100
D908	224470512	MTZJ5.1B, Zener
D909,D910	224471503	MTZJ15C, Zener
Coils		
L501,L502	231176S	S-1.3C
Ceramic lock		
X701	3010150	CST4.00MGW, 4M
Capacitors		
C101,C102,C321, C322,C501,C502, C511,C512,C705, C910,C918, C921-C924	354741009	10 μ F, 16V, Elect.
C103,C104	374721215	120pF $\pm$ 10%, 50V, Plastic
C107,C108,C537, C703	354741019	100 μ F, 16V, Elect.
C109,C110	374726824	6800pF $\pm$ 5%, 50V, Plastic
C111,C112	374721824	1800pF $\pm$ 5%, 50V, Plastic
C115,C116	354784709	47 μ F, 50V, Elect.
C221-C230	374721015	100pF $\pm$ 10%, 50V, Plastic
C309,C913-C916	354780109	1 μ F, 50V, Elect.
C319,C320	354780229	2.2 μ F, 50V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
C513,C514	354781009	10 μ F, 50V, Elect.
C517-C518,C903, C904,C907	374721044	0.1 μ F $\pm$ 5%, 50V, Plastic
C523,C524	354743319	330 μ F, 16V, Elect.
C538	354783399	0.33 μ F, 50V, Elect.
C701,C702	354780479	4.7 μ F, 50V, Elect.
C704	354721019	100 μ F, 6.3V, Elect.
C707	354781099	0.1 μ F, 50V, Elect.
C708	3000076 or 3000078	EECS5R5T104 or DX-5R5L104, EDL C
C905,C906	3504270	6800 μ F, 50V, Elect.
C908	354742229	2200 μ F, 16V, Elect.
C911,C912	354742219	220 μ F, 16V, Elect.
C917	354744709	47 μ F, 16V, Elect.
C919,C920	354780109	1 μ F, 50V, Elect.
Resistors		
R509,R510,R521, R522	443528204	82ohm $\pm$ 5% 1/2W, Metal oxid
R527,R528	443526804	82ohm $\pm$ 5% 1/2W, Metal oxid
R529,R530	443528204	68ohm $\pm$ 5% 1/2W, Metal oxid
R539,R540	5210256	82ohm $\pm$ 5% 1/2W, Metal oxid
R541,R542	443523914	N06HR, 300BC, Trim
R543-R546	443521014	390ohm $\pm$ 5% 1/2W, Metal oxid
R547,R548	443522214	100ohm $\pm$ 5% 1/2W, Metal oxid
R549-R552	453530474	220ohm $\pm$ 5% 1/2W, Metal oxid
R553,R554	4000132	4.7ohm $\pm$ 5%, 1/2W, Metal
R567,R568	443521004	0.22 ohm $\pm$ 10%, 5W, Metal Plate
R569,R570	453630824	10ohm $\pm$ 5% 1/2W, Metal oxid
R906,R907	443523614	8.2ohm $\pm$ 5%, 1/2W, Metal
R909-R912	453530224	360ohm $\pm$ 5% 1/2W, Metal oxid
R915	453530224	2.2ohm $\pm$ 5%, 1/2W, Metal
Jacks		
P101	25045472 or 25045307	NPJ-2PDBL290 or NPJ-2PDBL166
P202	25045458 or 25045300	NPJ-6PDBL279 or NPJ-6PDBL159
P203,P204	25045460 or 25045303	NPJ-4PDBL281 or NPJ-4PDBL162
P205	25045481	NPJ-2PDBL299
Plugs		
P503a	25055900	NPLG-5P856
P505,P506	25055038	NPLG-2P29
P903a	25055168	NPLG-5P152

U2 CONTROL CIRCUIT PC BOARD (NAETC-6039)

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C301,C302	374721815	180pF $\pm$ 10%, 50V, Plastic
C303,C304	374728234	0.082 μ F $\pm$ 5%, 50V, Plastic
Transistor		
Q303	2213354	2SA933S-R
Resistor		
R301	5142024	N16RGLC250K, MN20F, BALANCE
Switches		
S301,S303	25035677	NPS-122-L630, push
S302	25035678	NPS-122-L631, push

U3 LED PC BOARD (NALED-6040)

CIRCUIT NO.	PART NO.	DESCRIPTION
LEDs		
D301,D713-D717	225291D	SEL4910D-D

U4 ENCODER PC BOARD (NASW-6041)

CIRCUIT NO.	PART NO.	DESCRIPTION
Switch		
S701	25030359	NRSF-112-20-RM, rotary
U5 VOLUME CIRCUIT PC BOARD (NAETC-6042)		
CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C305,C306	374724715	470pF $\pm$ 10%, 50V, Plastic
Resistor		
R311	5142021	R16RGL, 100KBT25F, VOLUME
Shield plate		
	27150405	

U6 TONE CIRCUIT PC BOARD (NAETC-6043)

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C311,C312	374723934	0.039 μ F $\pm$ 5%, 50V, Plastic
C313,C314	374726824	6800pF $\pm$ 5%, 50V, Plastic
C315,C316	374721544	0.15 μ F $\pm$ 5%, 50V, Plastic
C317,C318	374722734	0.027 μ F $\pm$ 5%, 50V, Plastic
Jack		
P502	25045164	HLJ4317-01-3020
Socket AS		
P503	2009990452A	NSAS-4P0606
Resistors		
R335	5142022	N16RGLC, 50KC20F, TREBLE
R343	5142023	N16RGLC, 100KC20F, BASS
Switches		
S501,S502	25035679	NPS-122-L632, push

U7 SPEAKER TERMINAL PC BOARD (NAETC-6044)

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C519-C522	374721215	120pF $\pm$ 10%, 50V, Plastic
Terminal		
P501	25060125 or 25060244	NTM-8PDMN058
Socket AS		
P504	2009990453A	NASA-6P0607

U8 POWER SWITCH PC BOARD (NASW-6045)

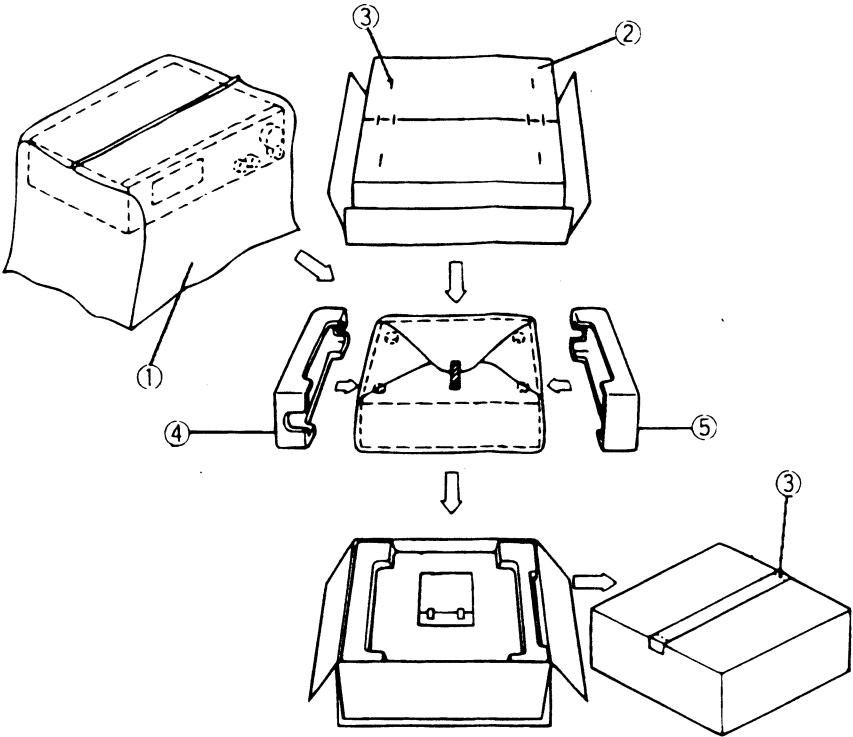
CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitor		
C902	3500191	DE7150FZ103M, IS C
Switches		
S901	25035550	NPS-111-L512P, push
	27301216	SB1925 Capacitor cover

U10 PRIMARY PC BOARD (NAPS-6047)

CIRCUIT NO.	PART NO.	DESCRIPTION
Fuse holders		
F901a	25050065	YSH403T<WT>
F902a	25050065	YSH403T
Socket AS		
P903	2009990454UL	NSAS-5P0608

NOTE: THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PACKING VIEW

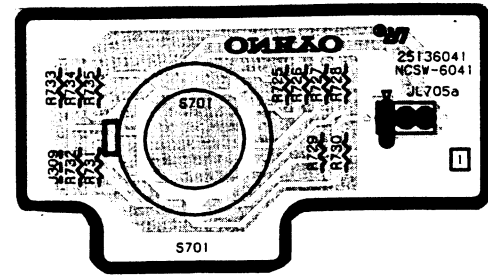


REF.NO.	PART NO.	DESCRIPTIONS
1	29100097-1AY	Polythene bag, 350x500
2	29053168	Carton box <P>
	29053170	Carton box <S><P>
	29053169	Carton box <P,WT>
3	282321Y	Staple
4	29091637CY	Pad (R)
5	29091636CY	Pad (L)
	Accessory bag ass'y	
	39100034-1AY	Polythene bag
	29342450A	Instruction manual, E
	29342451A	Instruction manual, U3FSI <P>
	29342453Y	Instruction manual, T <PT,WT>
	29342452A	Instruction manual, U3GSWD <P>
	24140286Y	RC-286S, Remote control
	3010194Y	UM-3, Battery
	25055018	CV-K-1, Converter plug <WT>
	29355133AY	Instruction sheet (DBP) <P>
	29362169Y	Lable (EAN)AS
	29362170Y	Lable (EAN)AS <S>

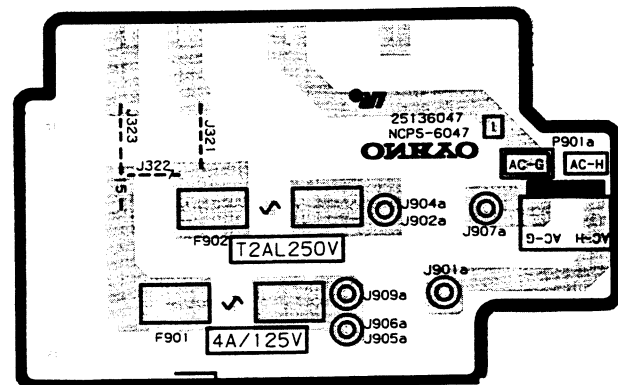
NOTE: Black color model only
<S> Silver color model only
<P> 230V model only
<WT> Taiwan model only
<PT> Asian model only

PRINTED CIRCUIT BOARD VIEW FROM BOTTM SIDE

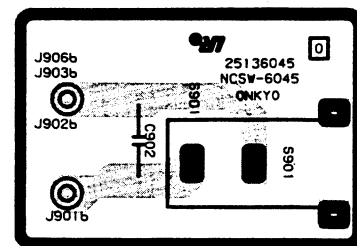
U4 ENCODER PC BOARD (NASW-6041-1)



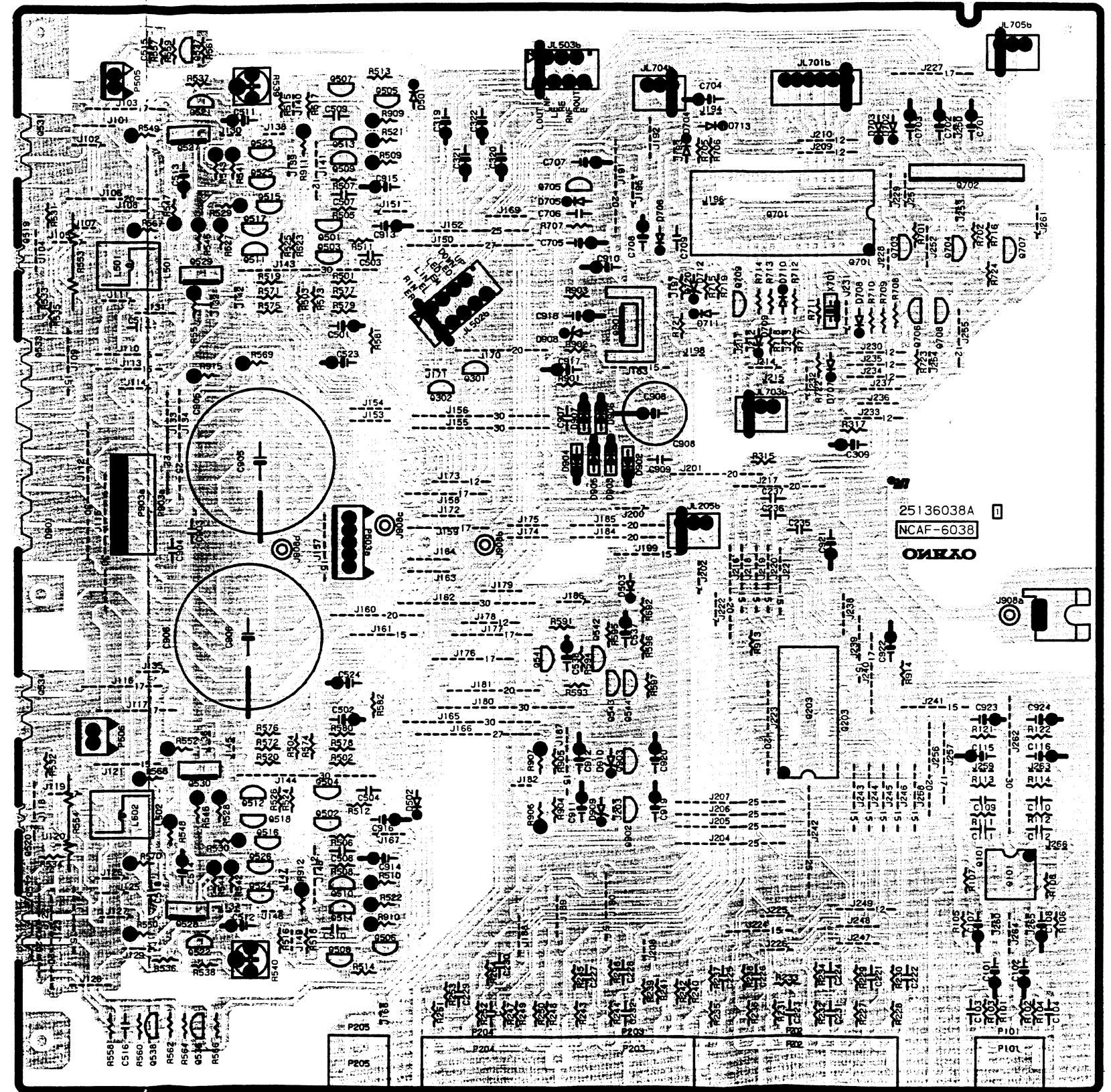
U10 PRIMARY PC BOARD (NAPS-6047-1)



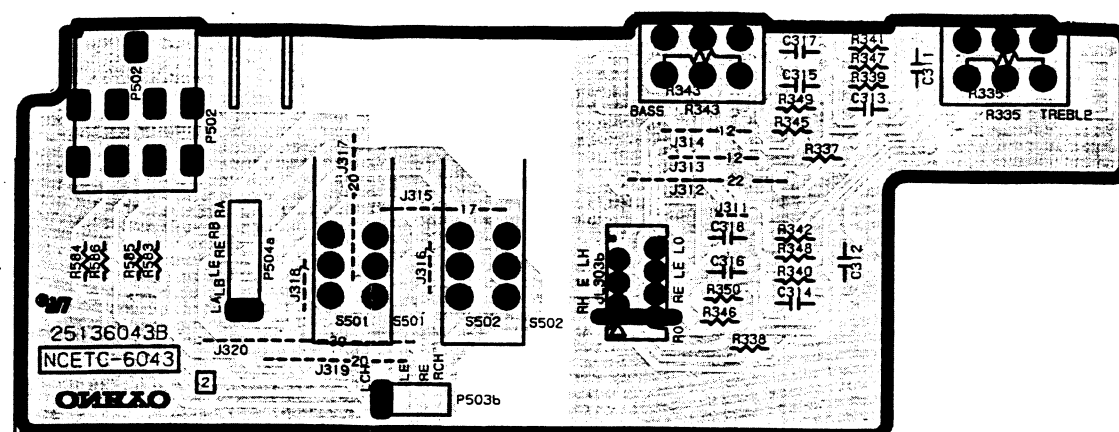
U8 POWER SWITCH PC BOARD (NASW-6045-1)



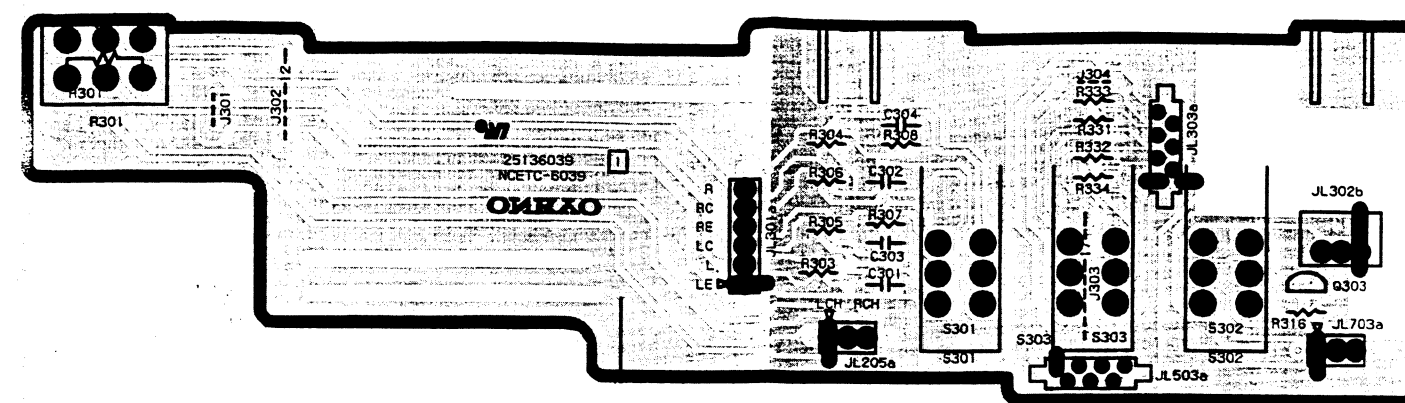
U1 MAIN CIRCUIT PC BOARD (NAAF-6038-1)



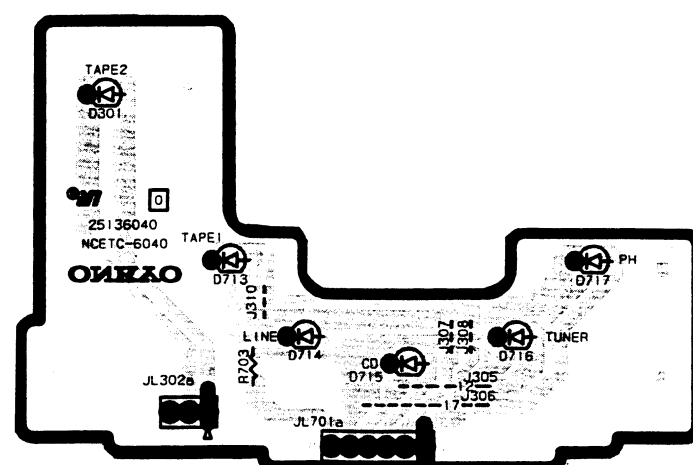
U6 TONE CIRCUIT PC BOARD (NAETC-6043-1)



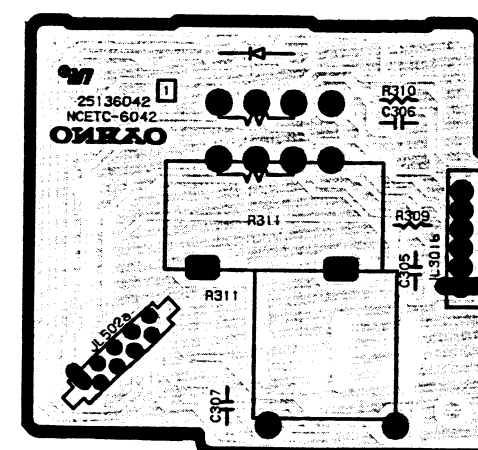
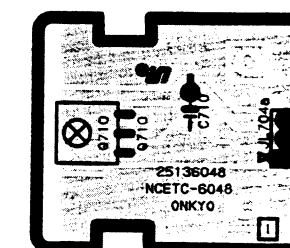
U2 CONTROL CIRCUIT PC BOARD (NAETC-6039-1)



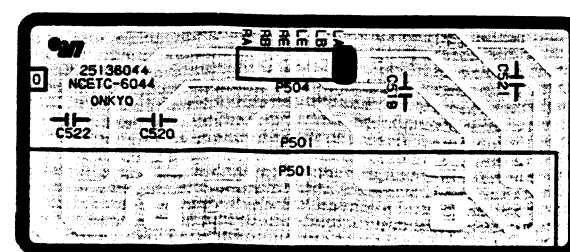
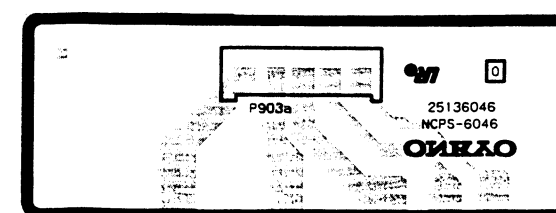
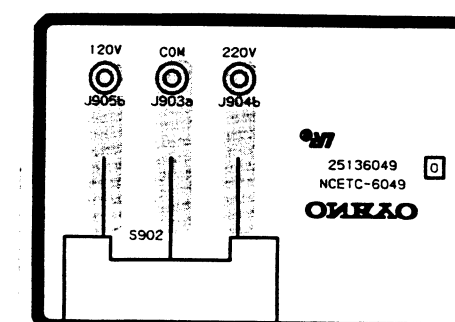
U3 LED PC BOARD (NALED-6040-1)



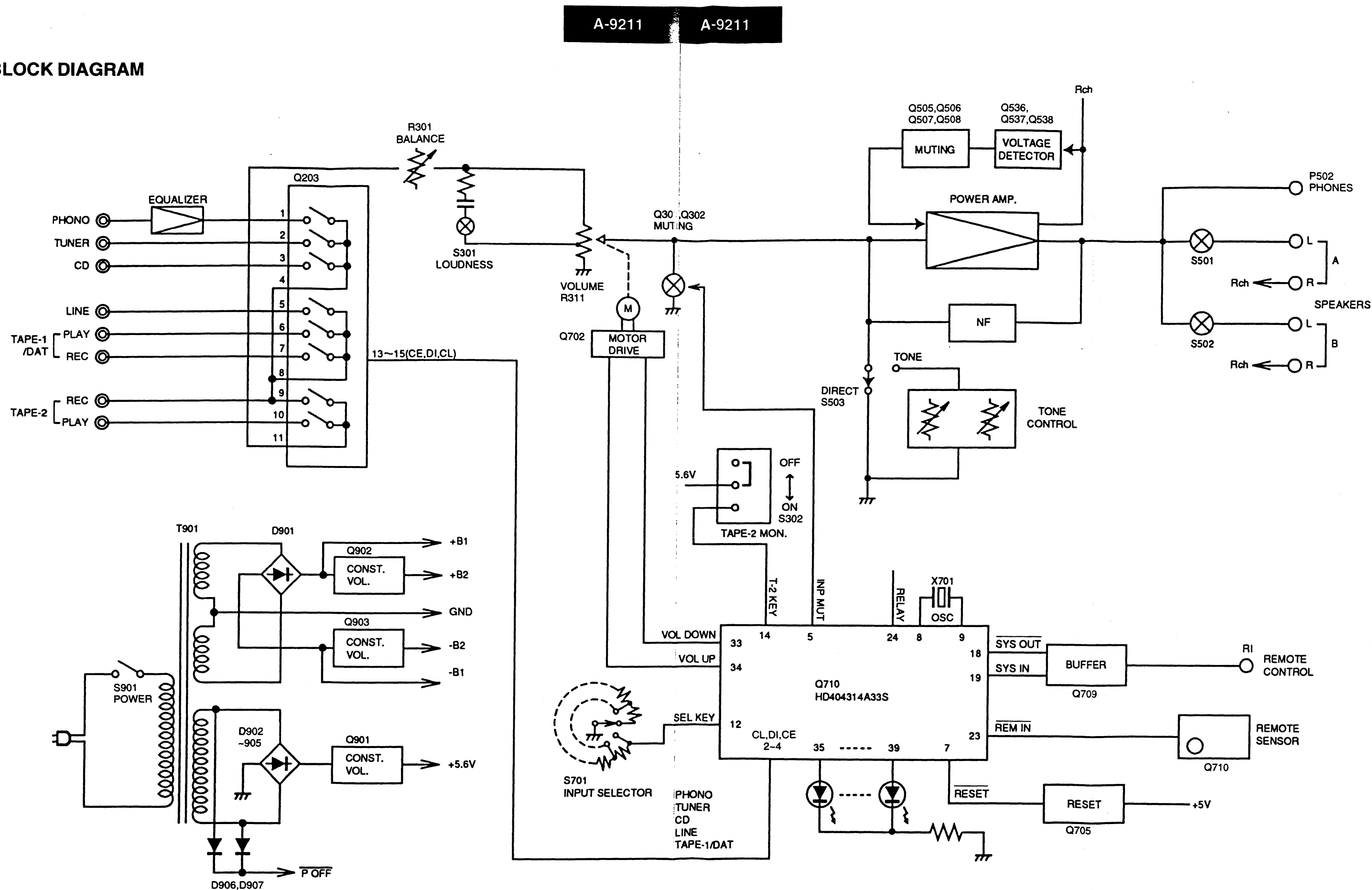
U5 VOLUME CIRCUIT PC BOARD (NAETC-6042-1)

U11 REMOTE SENSOR
PC BOARD (NAETC-6048-1)

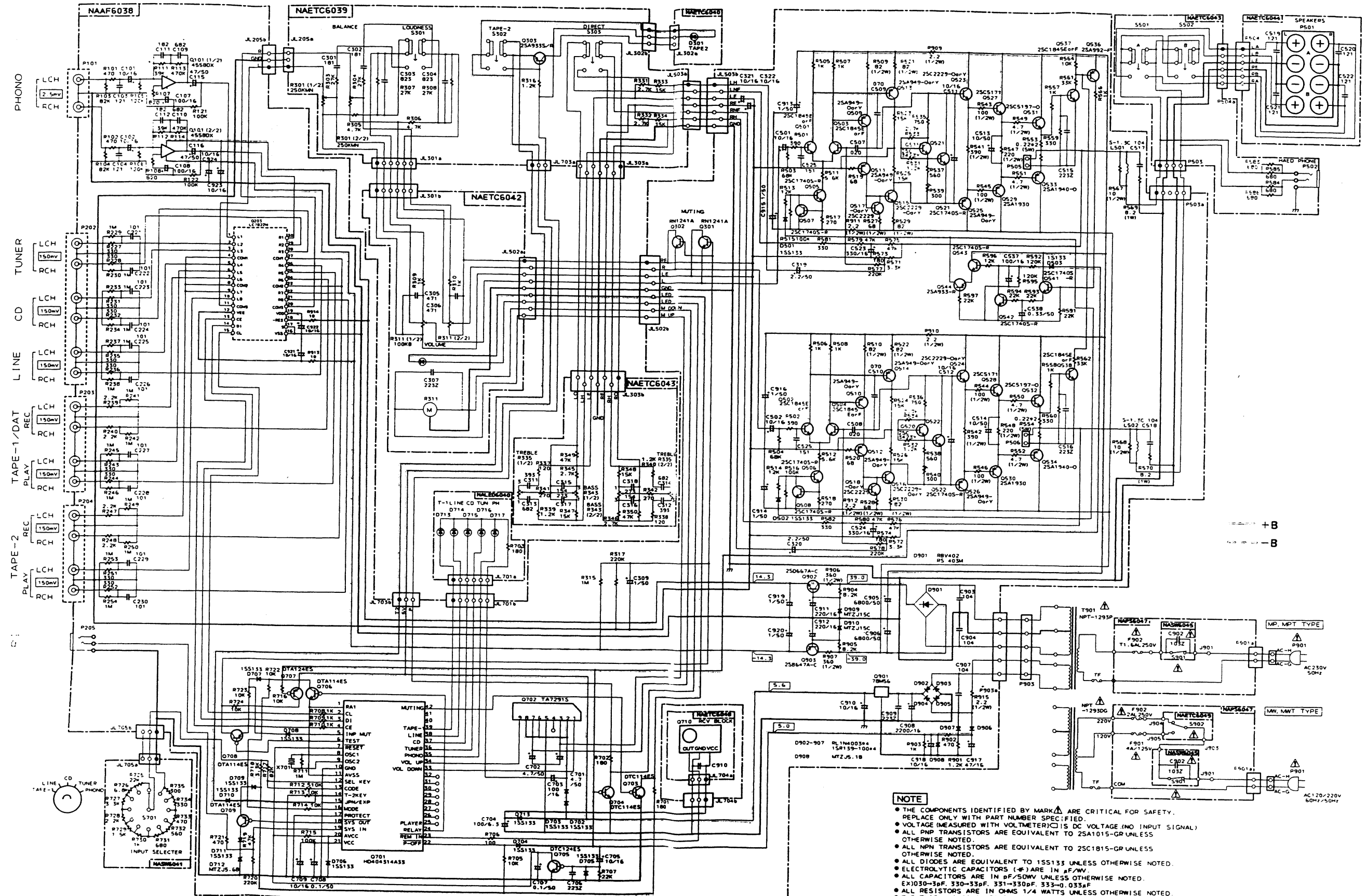
U7 SPEAKER TERMINAL PC BOARD (NAETC-6044-1)

U13 SECONDARY PC BOARD
(NAPS-6046-1)U12 VOLTAGE SELECTOR
PC BOARD (NAETC-6049-1)

BLOCK DIAGRAM



SCHEMATIC DIAGRAM MODEL A-9211



PRECAUTIONS

1. Safety-check out

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Connect the insulating-resistance tester between the plug of power supply cord and chassis.

Specifications : More than 10 Mohm at 500V.

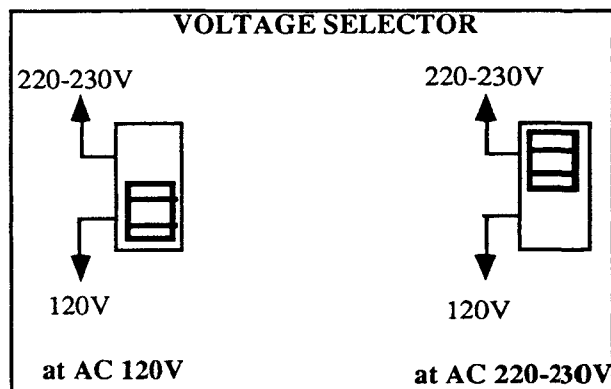
2. Replacing the fuses

For continued protection against fire hazard, replace only with same type and same rating fuse.

Circuit No.	Part No.	Description
F901	252151 or 252163	4A-TSC <WT>
F902	252073 252074	1.6A-SE-EAK <P> 2A-SE-EAK <PT,WT>

NOTE : <P> 230V model
: <PT> Asian model
: <WT> Taiwanese model

3. Voltage Selector (Rear Panel)



Setting the voltage selector

1. Determine the proper voltage for your area : 220-230V or 120V.
2. IF the preset voltage is not correct for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way down (120V) or up (220-230V), whichever is appropriate.