

ONKYO® SERVICE MANUAL

INTEGRATED STEREO AMPLIFIER MODEL A-06

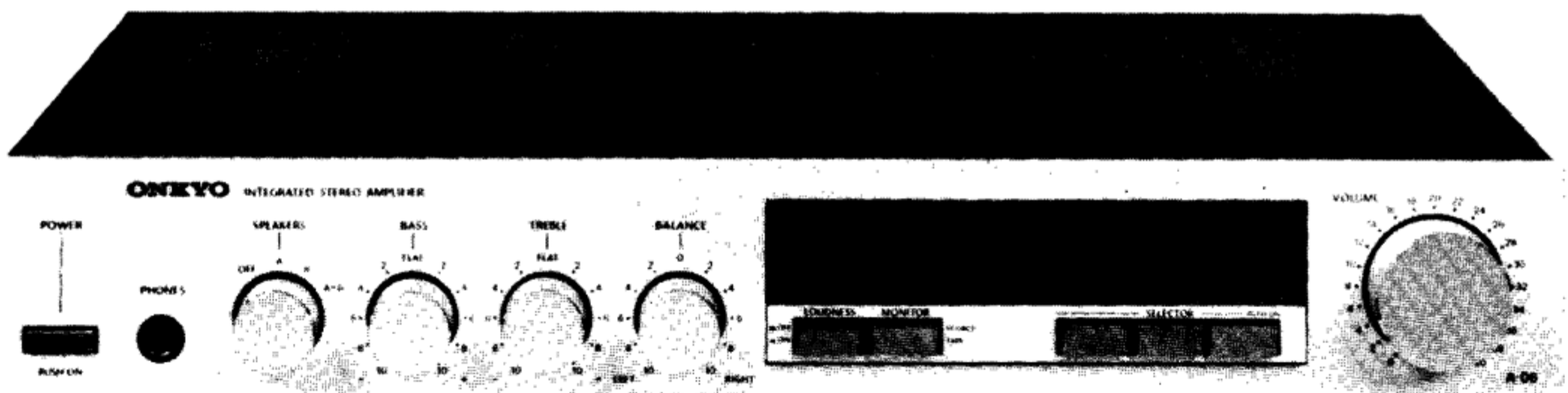


TABLE OF CONTENTS

Item	Page
Specifications	2
Block diagram	2
Precautions	4
Exploded view	5
Component location	6
Printed circuit board view from component side	7
Schematic diagram	9
Printed circuit board — Parts list	11
Packing procedures	12

ONKYO®
AUDIO COMPONENTS

SPECIFICATIONS

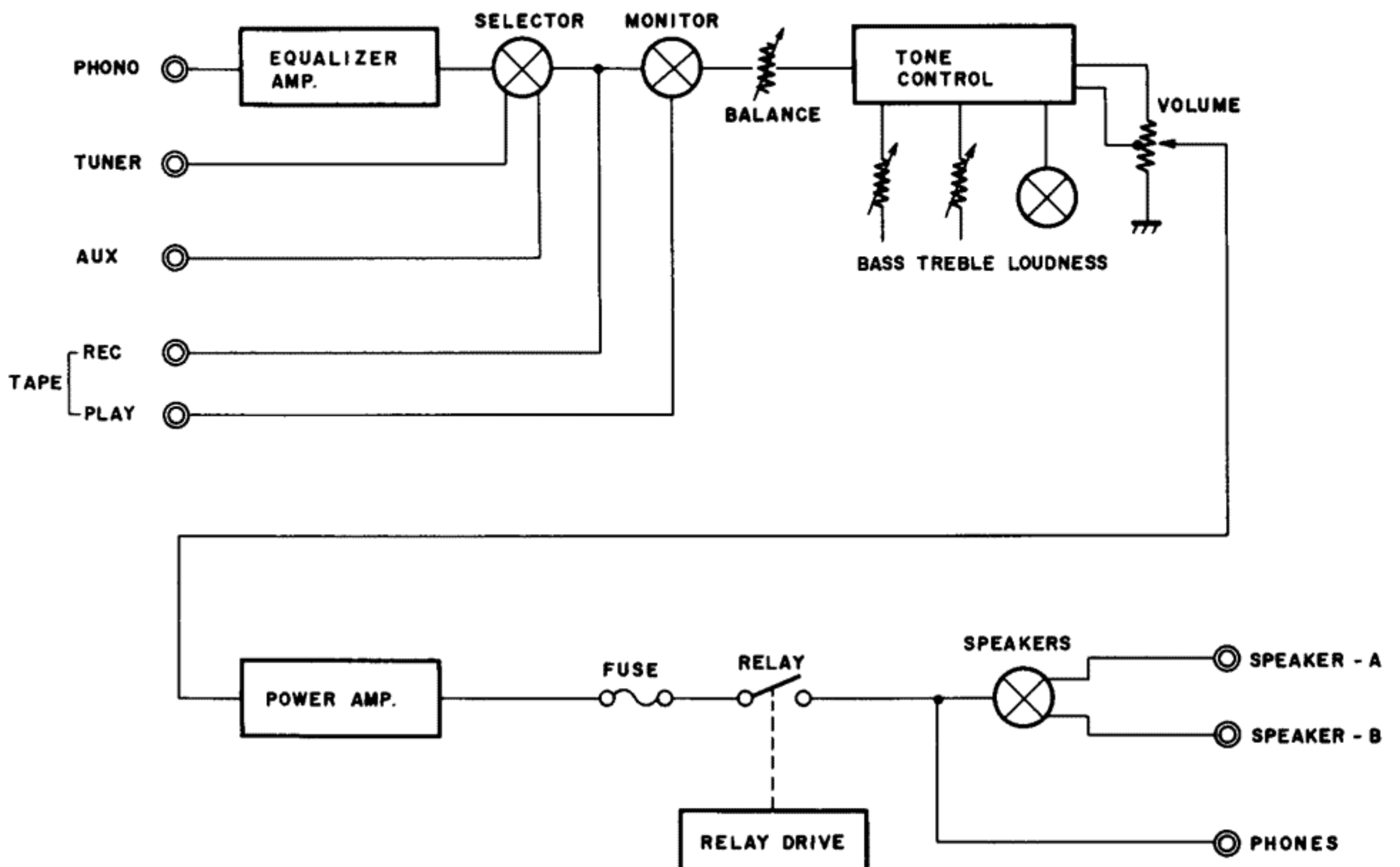
Music Power Output :	2 x 45 watts at 4 ohms, 1 kHz (DIN) 2 x 40 watts at 8 ohms, 1 kHz (DIN)
Continuous Power Output :	2 x 40 watts at 4 ohms, 1 kHz (DIN) 2 x 37 watts at 8 ohms, 1 kHz (DIN) 30 watts per channel min. RMS at 8 ohms both channels driven, from 20 Hz to 20 kHz, with no more than 0.08% THD.
Total Harmonic Distortion :	0.08% at rated power
IM Distortion :	0.08% at rated power
Damping Factor :	40 at 8 ohms.
Frequency Response :	15 — 30,000 Hz, ± 1 dB
Sensitivity and Impedance :	Phono : 2.5mV/50 kohms AUX/Tuner : 150 mV/50 kohms Tape Play : 150 mV/50 kohms Tape Rec : 150 mV/3.5 kohms (Phono)
Phono Overload :	150 mV RMS at 1 kHz, 0.08% THD.
Bass Control :	± 7 dB at 100 Hz
Treble Control :	± 8 dB at 10,000 Hz
Signal to Noise Ratio :	Phono : 75 dB (IHF A-202, 5 mV input, 1 watt output) Tuner & Tape : 80 dB (IHF A-202, 0.5 V input, 1 watt output)
Loudness :	+6 dB at 70 Hz +6 dB at 10 kHz

General

Power Supply :	European model AC 220 V 50 Hz U.S.A and Canadian model AC 120 V 60 Hz British and Australian model AC 240 V 50 Hz Universal model AC 120/220V 50/60Hz
Semiconductors :	2 ICs, 2 transistors, 10 diodes, 5 LEDs
Dimensions :	418(W) x 72(H) x 281(D) mm 16-1/2" x 2-7/8" x 11"
Weight :	5,9 kgs, 13,0 lbs

Specifications and features are subject to change without notice.

BLOCK DIAGRAM



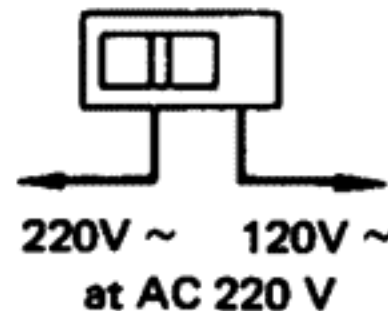
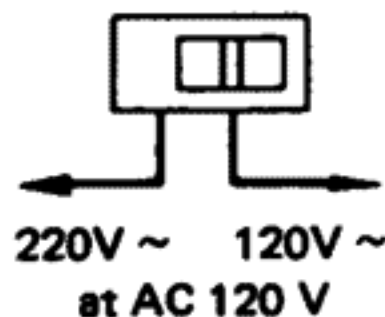
PRECAUTIONS

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

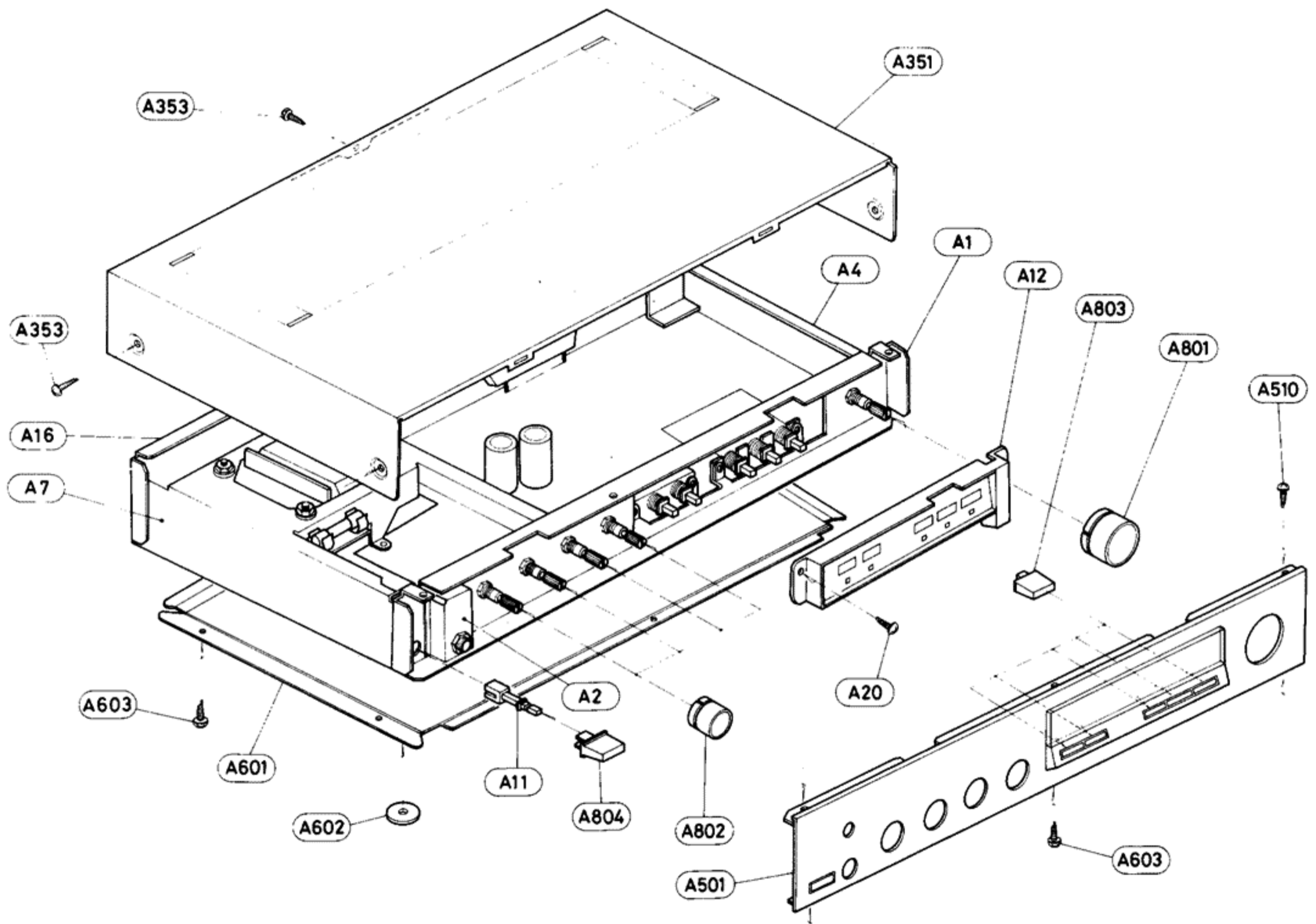
CIRCUIT NO.	PARTS NO.	DESCRIPTION
F901	252048	3A (ST-6), AC fuse (D)
F901	252074	2A-SE-EAK, AC fuse (G)
F901	252002	2A-T, AC fuse (Q)
F901	252003	3A-T, AC fuse (W)
F902	252074	2A-SE-EAK, AC fuse (W)
F501, F601	252006	4A (SS-2), Speaker protection fuse (D)
F501, F601	252014	4A-T, Speaker protection fuse (W/Q)
F501, F601	252076	3.15A-SE-EAK, Speaker protection fuse (G)

2. Voltage Selector (rear panel)

Some models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by sliding the groove in the switch with a screwdriver or similar instrument to the right or left position. Confirm that the switch has been moved all the way to the right or left before turning the power switch on. If there is no voltage selector switch on the unit you have purchased, it can only be used in areas where the power supply voltage is the same as that of the unit.



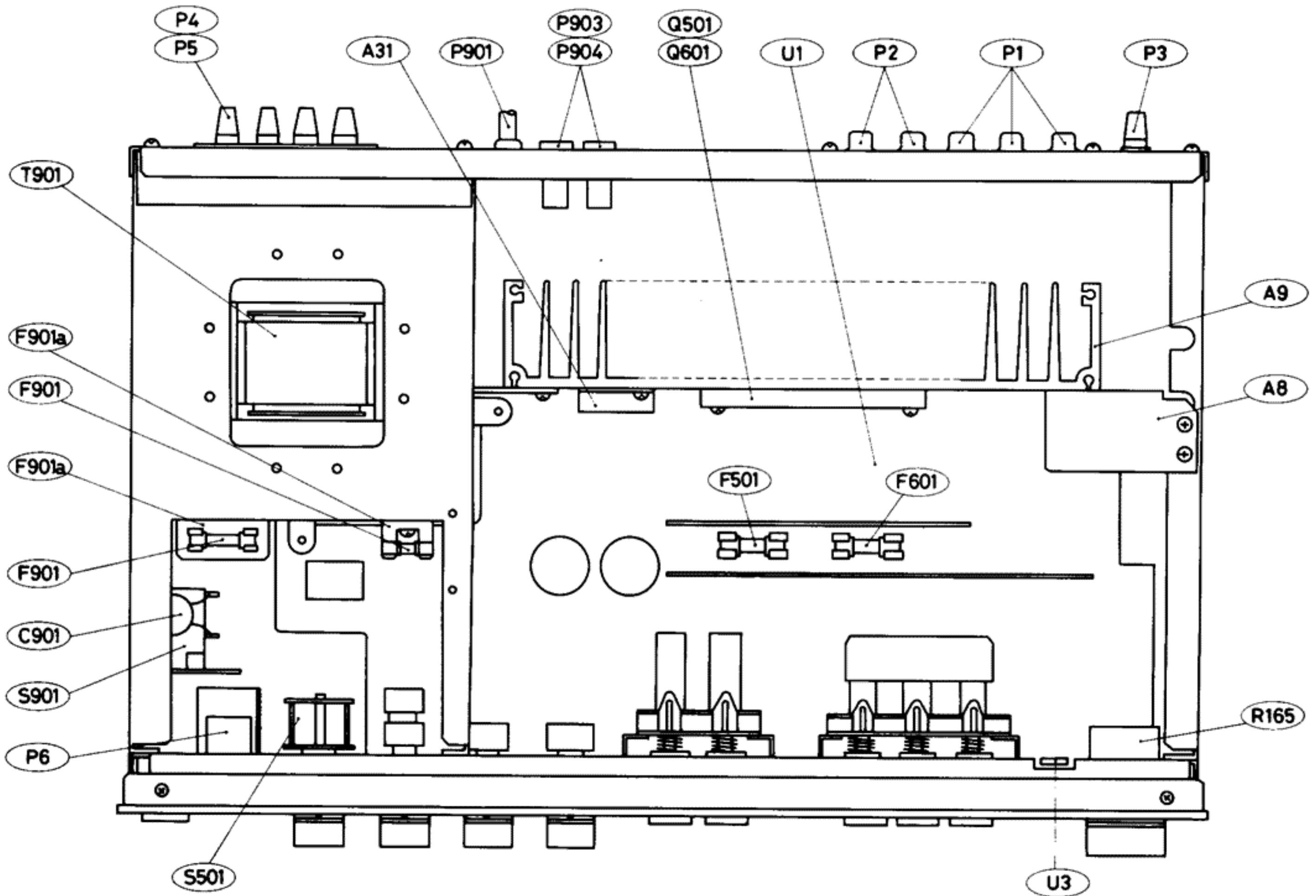
EXPLODED VIEW



PARTS LIST

REF. NO.	PARTS NO.	DESCRIPTION
A1	27110171	Front bracket
A2	27140503	Bracket, headphone
A4	27115045E	Side bracket
A6	27140526	Bracket, switch
A7	27130313	Bracket, power transformer
A8	27140446	Bracket, pc board
A9	27160106	Radiator
A11	27260062	Shaft
A12	12689901	Holder ass'y
A16	27120400	Back panel (D)
	27120401	Back panel (G)
	27120402	Back panel (W)
	27120406	Back panel (Q)
A20	834130088	3TTS + 8B, Tapping screw
A351	28184113	Top cover
A352	28140020	t4x10x40mm, Cushion
A353	834430068	3TTS + 6B(BC), Tapping screw
A501	12448121	Front panel ass'y
A502	28191089	Clear plate
A503	27267121	Guide, selector
A504	27267109	Guide, power
A505	27262110	Plate
A510	834130068	3TTS + 6B, Tapping screw
A601	27170094B	Bottom board
A602	27175011C	Leg
A603	831130068	3TTW + 6B, Tapping screw
A604	834140108	4TTS + 10B, Tapping screw
A801	28320543-1	Knob, volume
A802	28320544-1	Knob, tone
A803	28320572	Knob, selector
A804	28320573	Knob, push
C901	3500065A	0.01μF, 400V, Capacitor IS
C901a	27300080	Cover, capacitor
F501, F601	252059	4A(SS-2), Speaker protection fuse (D)
	252076	3.15A-SE-EAK, Speaker protection fuse (G)
	252014	4A-T, Speaker protection fuse (W/Q)
F901	252048	3A(ST-6), Primary fuse (D)
F901	252003	3A-T, Primary fuse (W)
F902	252074	2A-SE-EAK, Primary fuse (W)
F901	252074	2A-SE-EAK, Primary fuse (G)
F901	250002	2A-T, Primary fuse (Q)
F901a	25050082	SN-1152, Fuse holder (D)
F901a	250143	FF-1S4, Fuse holder (W/Q)
	25065096	NPE-073, Fuse holder (G/W)
P001	25045022	NPJ-6PRBL01, Phone/tuner/aux. terminal

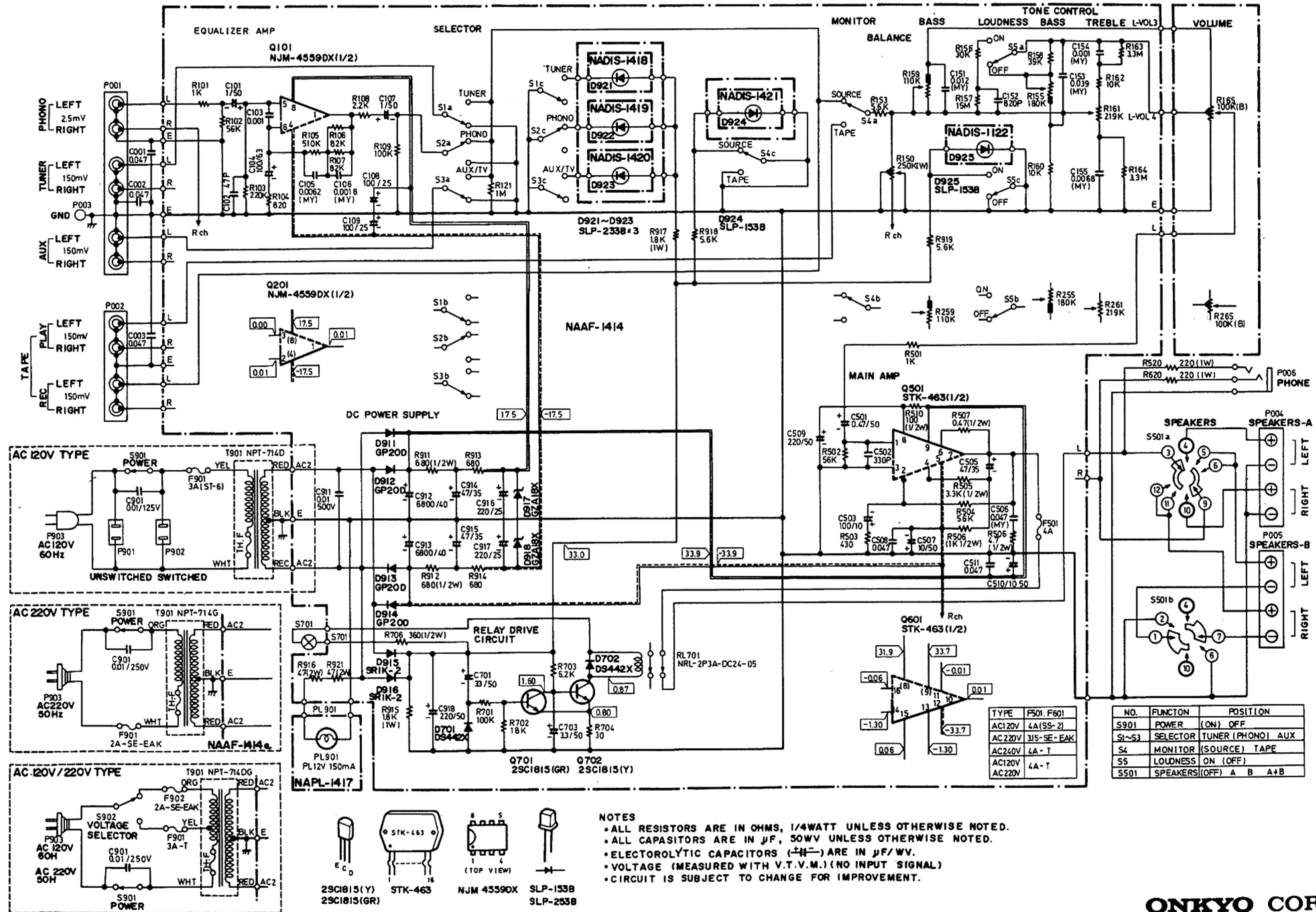
COMPONENT LOCATION



REF. NO.	PARTS NO.	DESCRIPTION
P002	25045025	NPJ-4PRBL03, Tape input/output terminal
P003	25060044	Ground terminal
P003a	87613010	W3x10F, Washer
P004, P005	25060038	NTM-4PRMN09, Speaker terminal
P006	25045112	HLJ-0109-01-010, Headphone terminal
P901	253112	AS-UC-4, Power supply cable (D)
	253083	AS-CEE, Power supply cable (G/W)
	253077-1	Power supply cable (Q)
P901a	270280	SR-4K-4, Strainrelief (D/G/W)
	27300349	SR-6W-1, Strainrelief (Q)
Q501, Q601	222020	STK-463, Power amplifier IC
R165, R265	5147013	N16RG100KBT35, Volume control variable resistor
S501	25030197	NRS-144-30F, Speaker selector switch
S701	25065127	1P-105A-100, Thermal switch
S901	25035321 or	NPS-111-L285P, or
	25035135	NPS-111-L100P, Power switch (D)
	25035322 or	NPS-111-L286P, or
	25035176	NPS-111-L140, Power switch (G/W)
	25035136	NPS-121-L101P, Power switch (Q)
S902	25065123	NSS-1258P, Voltage selector switch (W)
T901	230424-1	NPT-714D, Power transformer (D)
	230425	NPT-714G, Power transformer (G)
	230426	NPT-714DG, Power transformer (W)
	230429	NPT-714Q, Power transformer (Q)
U1	12448514	NAAF-1414, Pre., and power amplifier pc board ass'y (D/W/Q)
	12454514A	NAAF-1414a, Pre., and power amplifier pc board ass'y (G)
U3	12448517	NAPL-1417, Power indicator pc board ass'y
U4	12448518	NADIS-1418, Tuner indicator pc board ass'y
U5	12448519	NADIS-1419, Phono indicator pc board ass'y
U6	12448520	NADIS-1420, Aux. indicator pc board ass'y
U7	12448521	NADIS-1421, Tape indicator pc board ass'y
U8	12448522	NADIS-1422, Loudness indicator pc board ass'y

Note ; D: Only 120V model G: Only 220V model
W: Only 120/220V model Q: Only Australia model

SCHEMATIC DIAGRAM



PRINTED CIRCUIT BOARD-PARTS LIST

MAIN, AND TONE AND EQUALIZER AMPLIFIER PC BOARD (NAAF-1414) — PART LIST

CIRCUIT NO. PARTS NO. DESCRIPTION

ICs		
Q101, Q201	222534 or 222646	NJM4559DX or TL4558P-B
Transistors		
Q701	2211255	2SC1815 (GR)
Q702	2211254	2SC1815 (Y)
Diodes		
D701, D702	223133	DS-442X
D911-D914	223845F	GP-20DL
D915, D916	223804	SR1K-2
D917, D918	2241191 or 2241193	GZA18X or GZA18Y
Capacitors		
C101, C201	352780109	1 μ F, 50V, Elect
C104, C204	352721019	100 μ F, 6.3V, Elect
C107, C207	35278010	1 μ F, 50V, Elect
C108, C109	352751019	100 μ F, 25V, Elect
C501, C601	352784799	0.47 μ F, 50V, Elect
C503, C603	352731019	100 μ F, 10V, Elect
C505, C605	352764709	47 μ F, 35V, Elect
C507, C607	352781009	10 μ F, 50V, Elect
C509	352782219	220 μ F, 50V, Elect
C510	352781009	10 μ F, 50V, Elect
C701	352783309	33 μ F, 50V, Elect
C703	352780339	3.3 μ F, 50V, Elect
C912, C913	3504170	6800 μ F, 40V, Elect
C914, C915	352764709	47 μ F, 35V, Elect
C916, C917	352752219	220 μ F, 25V, Elect
C918	352782219	220 μ F, 50V, Elect
Resistors		
R150	5146034	N16RLC250KWT30 Variable, Balance control
R155, R159	5148073	N16RQMC110K180K30 Variable, Bass control
R255, R259		
R161, R261	5148074	N16RGMC219K30 Variable, Treble control
R505, R605	441523324	3.3k Ω , 1/2W, Metal oxide film
R506, R606	441521024	1k Ω , 1/2W, Metal oxide film
R507, R607	441624794	0.47 Ω , 1W, Metal oxide film
R508, R608	441520474	4.7 Ω , 1/2W, Metal oxide film
R510	441521014	100 Ω , 1/2W, Metal oxide film
R706	441523614	360 Ω , 1/2W, Metal oxide film
R911, R912	441526814	680 Ω , 1/2W, Metal oxide film
R915, R917	441621824	1.8k Ω , 1W, Metal oxide film
R916, R921	441724704	47 Ω , 2W, Metal oxide film
Relay		
RL701	25065108	NRL-2P3A-DC24-05, Speaker
Switches		
S1—S3	25035258	NPS-342-L222, Selector
S4, S5	25035259	NPS-242-L223, Tape monitor/Loudness

Fuseholders

250113 SN-5051
25050065 YSH403T(G)(Q)

Terminals

27300236
27300237

POWER INDICATOR PC BOARD (NAPL-1417)-PARTS LIST

CIRCUIT NO. PARTS NO. DESCRIPTION
210065B PL12V150mA, Lamp

TUNER INDICATOR PC BOARD (NADIS-1418)-PARTS LIST

CIRCUIT NO. PARTS NO. DESCRIPTION
225085 SLP-253B, LED

PHONO INDICATOR PC BOARD (NADIS-1419)-PARTS LIST

CIRCUIT NO. PARTS NO. DESCRIPTION
225085 SLP-253B, LED

AUX. INDICATOR PC BOARD (NADIS-1420)-PARTS LIST

CIRCUIT NO. PARTS NO. DESCRIPTION
225085 SLP-253B, LED

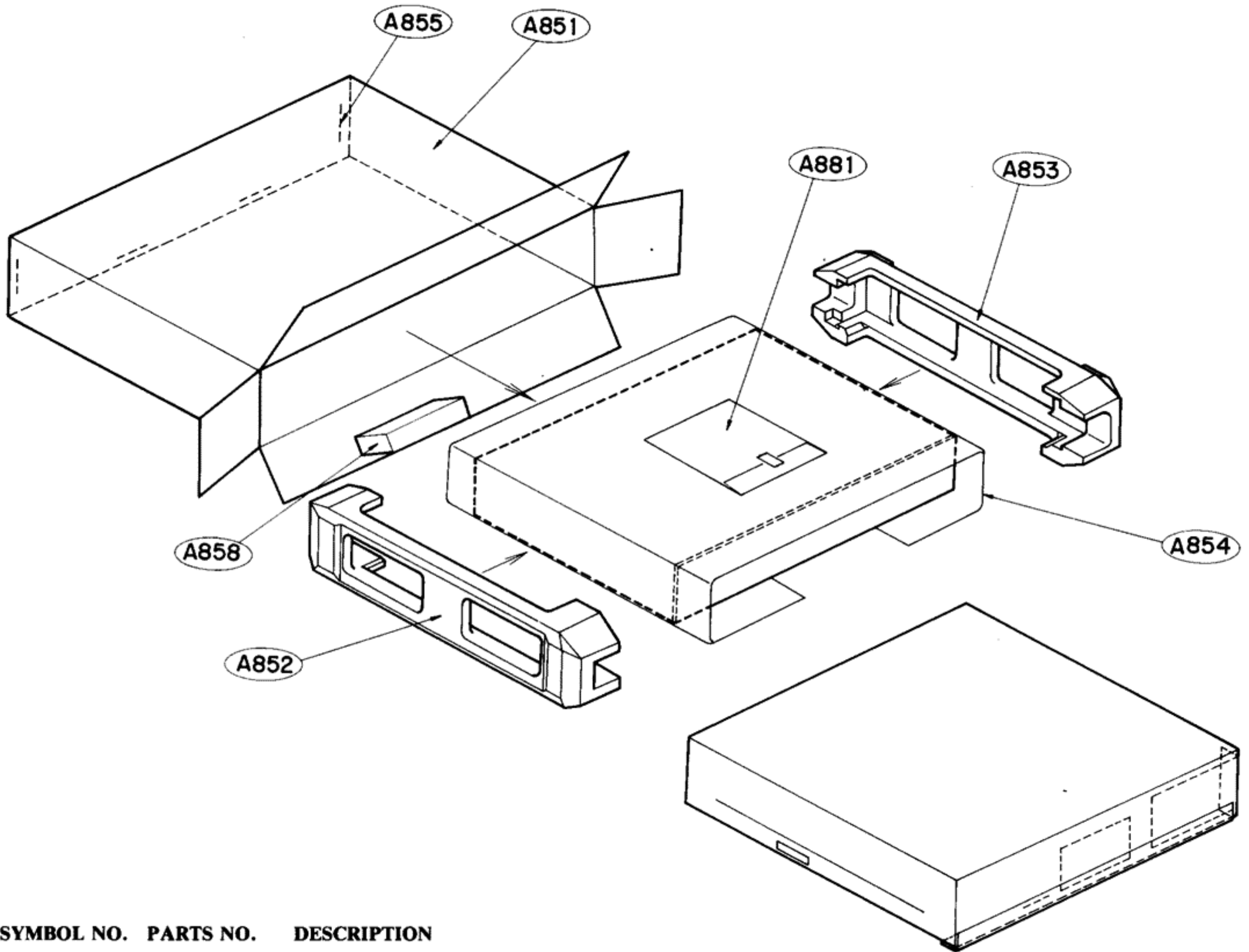
TAPE INDICATOR PC BOARD (NADIS-1421)-PARTS LIST

CIRCUIT NO. PARTS NO. DESCRIPTION
225084 SLP-153B, LED

LOUDNESS INDICATOR PC BOARD (NADIS-1422)-PARTS LIST

CIRCUIT NO. PARTS NO. DESCRIPTION
225084 SLP-153B, LED

PACKING PROCEDURES



SYMBOL NO.	PARTS NO.	DESCRIPTION
A851	29050562	Master carton box
A852	29090532A	Pad, left
A853	29090533C	Pad, right
A854	29100051	420x750mm, Poly bag
A855	282301	Sealing hook
A856	260012	W = 50mm, Damplon tape
A858	29090617	Pad
	29360566	Label C(U)
	29360567	Label (U)
A881		Accessory bag ass'y
	29340613	Instruction manual(D)(U)
	29340614	Instruction manual(W)(G)(V)(Q)
	29365006-3	Warranty card(U)
	29365005-3	Warranty card(V)
	29358002	Service station list(U)
	25055040	Conversion plug(W)
	29100006	350 x 250mm, Poly bag

Note

- (U) : Only U.S.A. model
- (V) : Only West Germany
- (D) : Only 120V model
- (G) : Only 220V model
- (W) : Only 120V/220V model
- (Q) : Only 240V model

ONKYO CORPORATION

International Division : No. 24 Mori Bldg., 23-5, 3-chome, Nishi-Shinbashi, Minato-ku, Tokyo, Japan
 Telex : 2423551 ONKYO J. Phone : 03-432-6981

ONKYO U.S.A. CORPORATION

Eastern Office : 200 Williams Drive, Ramsey, N.J. 07446 Tel. 201-825-7950
 Midwest Office : 2406 Martin Lane Rolling Meadows, Ill 60008 Tel. 312-577-4300
 Western Office : 8607 Canoga Ave., Canoga Park, CA, 91304 Tel. 213-341-8114

ONKYO DEUTSCHLAND GMBH, ELECTRONICS

8034 München-Germering. Industriestrasse 18, West Germany. Telex: 521726 Telefon: (089)-84-3071