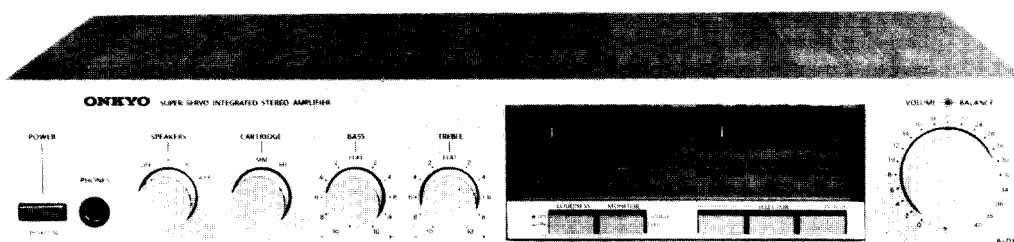


# ONKYO® SERVICE MANUAL

## INTEGRATED STEREO AMPLIFIER

### MODEL A-08



## TABLE OF CONTENTS

Item	Page
Specifications	2
Block diagram	2
Power meter adjustment	4
Precautions	4
Exploded view	5
Component location	6
Schematic diagram	7
Printed circuit board view from component side	13
Printed circuit board-parts list	15
Packing procedures	16

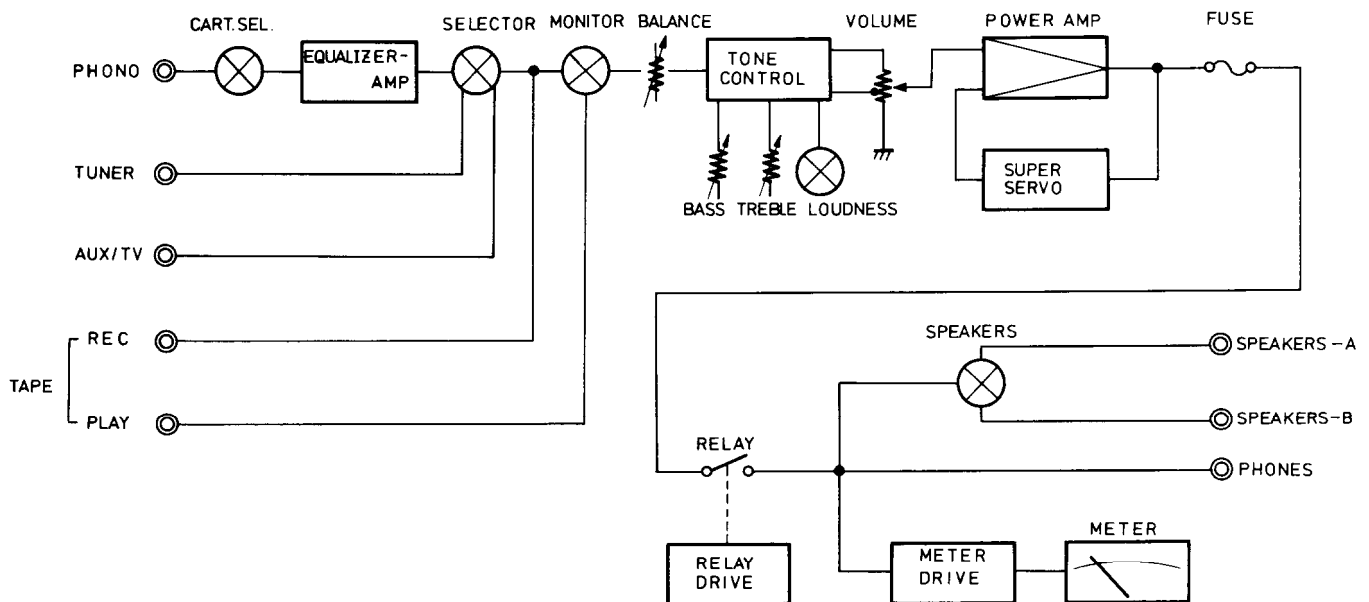
**ONKYO®**  
**AUDIO COMPONENTS**

## SPECIFICATIONS

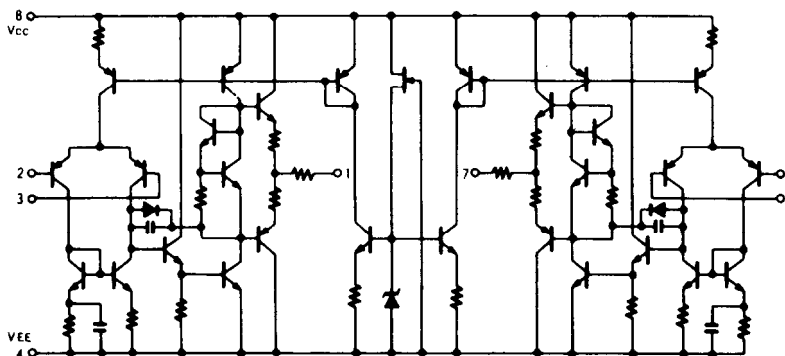
Power Output:	40 watts per channel min. RMS, at 8 ohms both channels driven, from 20Hz to 20kHz, with no more than 0.04% THD.
Total Harmonic Distortion:	0.04% at rated power
IM Distortion:	0.04% at rated power
Damping Factor:	40 at 8 ohms
Frequency Response:	15—50,000Hz $\pm$ 1dB
RIAA Deviation (MM):	20—20,000Hz $\pm$ 0.5dB
Sensitivity and Impedance:	Phono (MM): 2.5mV/50k ohms (MC): 350 $\mu$ V/330 ohms Tuner: 150mV/50k ohms Tape Play: 150mV/50k ohms Tape Rec: 150mV/1k ohms (phono)
Phono Overload:	180mV RMS at 1kHz, 0.04% THD.
Bass Control:	$\pm$ 8dB at 100Hz
Treble Control:	$\pm$ 8dB at 10,000Hz
Signal to Noise Ratio:	Phono (MM): 75dB (IHF A-202, 5mV input, 1 watt output) (MC): 66dB (IHF A-202, 0.5mV input, 1 watt output) Tuner & Tape: 80dB (IHF A-202, 0.5V input, 1 watt output)
Loudness:	+ 6dB at 70Hz + 5dB at 10kHz
<b>General</b>	
Semiconductors:	5 ICs, 2 transistors, 17 diodes, 5 LEDs
Dimensions:	418(W) x 83(H) x 280(D) mm 16-1/2" x 3-1/4" x 11"
Weight:	6.5kg, (14.3 lbs.)
Power Supply:	AC 220V 50Hz (G model) AC 120V 60Hz (D model) AC 120/220V 60/50Hz (W model) AC 240V 50Hz (Q model)

Specifications and features are subject to change without notice.

## BLOCK DIAGRAM



## NJM4558



## POWER METER ADJUSTMENT

1. Connect the hollow resistor of 8 ohms to the speaker terminal and the AF oscillator to the AUX terminal.
2. Set the AF oscillator output to 1kHz.
3. Adjust the right channel power meter to 1W with the volume control variable resistor.
4. Adjust the semi-fixed resistor of R553 to left channel output meter to 1W.

## PRECAUTIONS

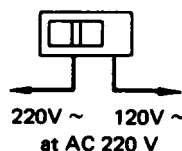
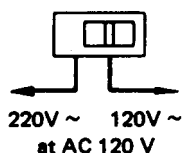
## 1. Replacing the fuses

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

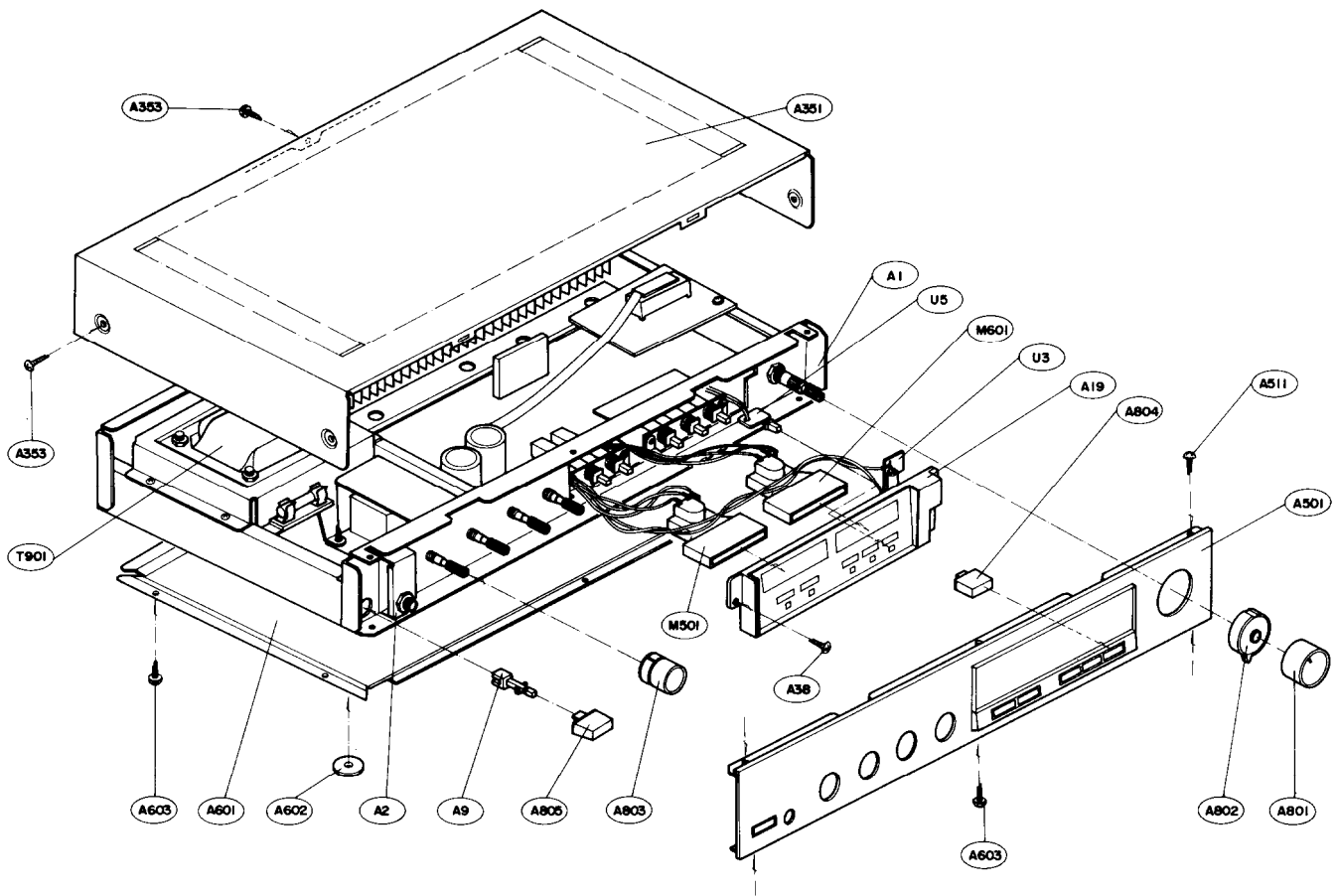
CIRCUIT NO.	PARTS NO.	DESCRIPTION	REMARKS
F501, F601	252059	4A(SS-2), Speaker protection fuse	120V model
F901	252049	4A(ST-6), AC fuse	120V model
F501, F601	252077	4A(SE-EAK), Speaker protection fuse	220V model
F901	252074	2A(SE-EAK), AC fuse	220V model
F501, F601	252014	4A-T, Speaker protection fuse	120V/220V model
F901	252014	4A-T, AC fuse	120V/220V model
F902	252074	2A(SE-EAK), AC fuse	120V/220V model
F501, F601	252014	4A-T, Speaker protection fuse	240V model
F901	252002	2A-T, AC fuse	240V model

## 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.

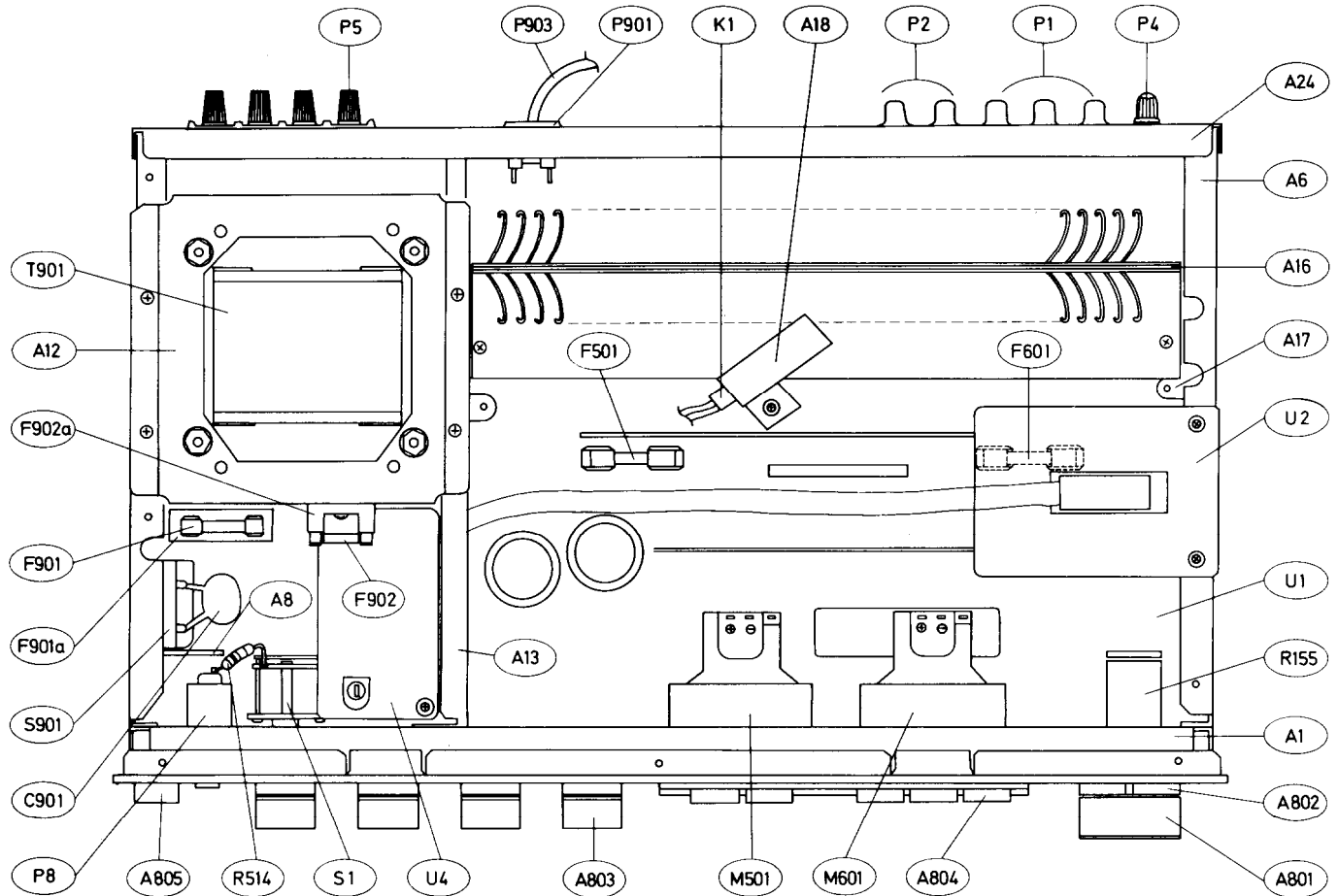


# EXPLODED VIEW



REF. NO.	PARTS NO.	DESCRIPTION
A1	27110172	Front bracket
A2	27140672	Bracket, headphone
A6	27115045E	Side bracket, right
A7	27115090	Side bracket, left
A8	27140526	Bracket, switch
A9	27260062	Shaft, switch
A12	27130314A	Bracket, power transformer
A13	27130239	Bracket, center
A16	27160078A	Heatsink
A17	27140458	Bracket, PC board
A18	270281A	Holder, thermal switch
A19	12428901	Holder ass'y
A24	27120411	Back panel (D)
	27120412	Back panel (G)
	27120413	Back panel (W)
	27120414	Back panel (Q)
A38	834130088	3TTS + 8B, Tapping screw
A351	28184114	Top cover
A353	834430068	3TTS + 6B(BC), Tapping screw
A501	12428121	Front panel ass'y
A511	834130068	3TTS + 6B, Tapping screw
A601	27170094A	Bottom board
A602	27175011C	Bottom leg
A603	831130068	3TTW + 6B, Tapping screw
A801	28320570	Knob, Volume
A802	28320798	Knob, Balance
A803	28320544-1	Knob, Tone
A804	28320572	Knob, Selector
A805	28320573	Knob, push
C901	3500065A	0.01 $\mu$ F, 400V, Capacitor IS
C901a	27300080	Cover, capacitor
C902	3500065A	0.01 $\mu$ F, 400V, Capacitor IS (Q)
C902a	27300080	Cover, capacitor (Q)
F901	252049	4A(ST-6), AC fuse (D)
	252074	2A-SE-EAK, AC fuse (G)
	252014	4A-T, AC fuse (W)
	252002	2A-T, AC fuse (Q)
F901a	25050082	S-N1152, Fuseholder (D)
	25065096	NPF-073, Fuseholder (G)
	250143	FF-1S4, Fuseholder (W) (Q)
F901b	282729	F-2.0, Fuse label (Q)
F902	252074	2A-SE-EAK, AC fuse (W)
F902a	25065096	NPF-073, Fuse holder (W)
F501, F601	252059	4A(SS-2), Speaker protection fuse (D)
	252077	4A-SE-EAK, Speaker protection fuse (G)
	252014	4A-T, Speaker protection fuse (W) (Q)
P1	25045029	NPJ-6PRBL07, Phono/Tuner/Aux input terminal
P2	25045025	NPJ-4PRBL03, Tape input/output terminal
P4	25060044	Ground terminal

# COMPONENT LOCATION

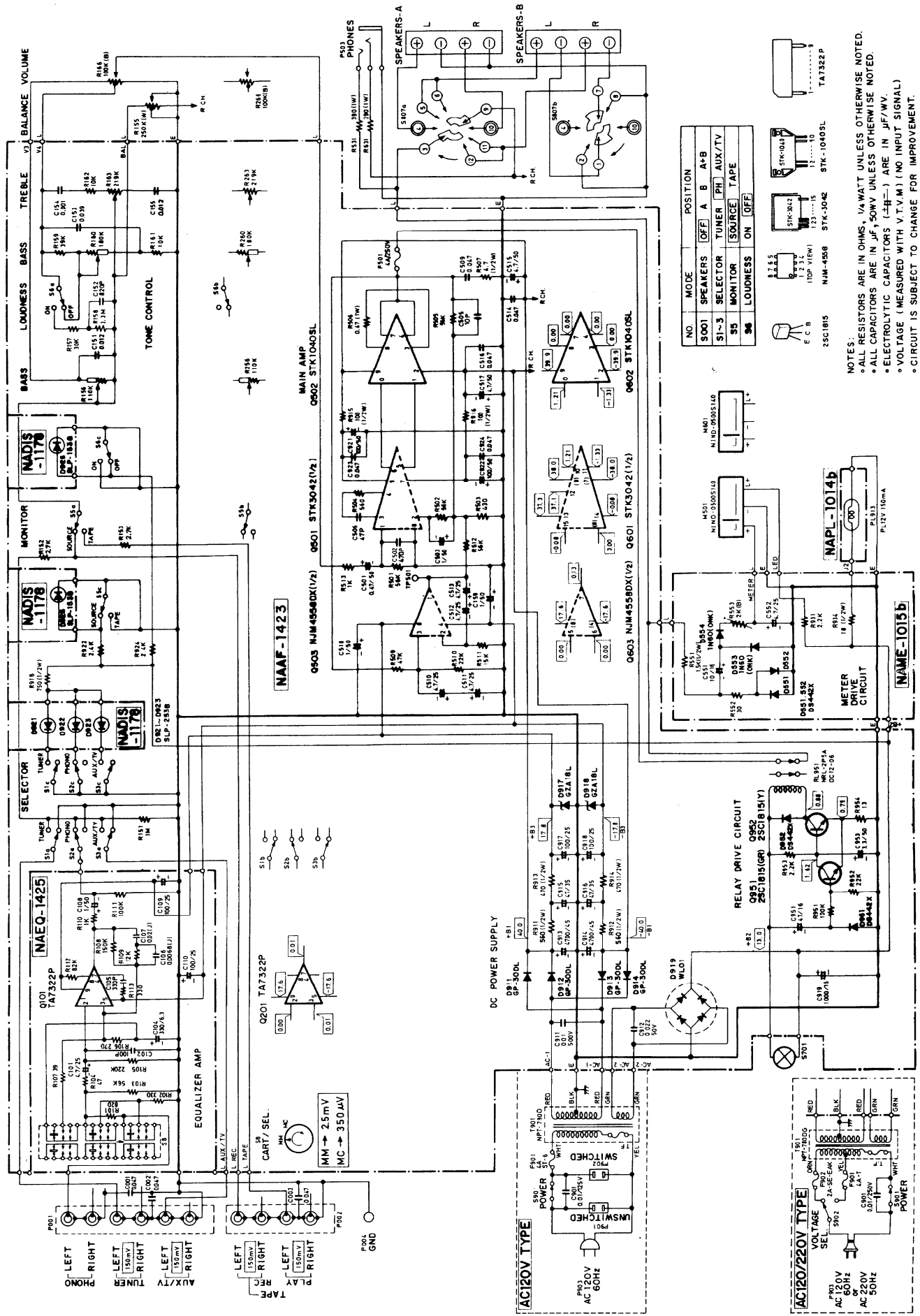


P5, P6	25060038	NTM-4PRMN09, Speaker terminal	S902	25065123	NSS-1258P, Voltage selector switch (W)
P8	25045112	HLJ-0109-01-010, Stereo headphone terminal	M501, M601	243140	NIND-0500S140, Power meter
P901, P902	25050046	NSCT-2P15, AC outlet (D)	U1	12428523	NAAF-1423, Power amplifier and DC power supply pc board ass'y (D/W/Q)
P903	253112	AS-UC-4 #18, Power supply cable (D)		12434523A	NAAF-1423a, Power amplifier and DC power supply pc board ass'y (G)
	253083	AS-CEE, Power supply cable (G) (W)	U2	12428525	NAEQ-1425, Equalizer amplifier pc board ass'y (D/W)
P903a	253077-1	Power supply cable (Q)		12434525A	NAEQ-1425a, Equalizer amplifier pc board ass'y (G/Q)
	270280	SR-4K-4, Strainrelief (D)	U3	12690514B	NAPL-1014b, Pilot lamp pc board ass'y
	27300349	SR-6W-1, Strainrelief (Q)	U4	12690515B	NAME-1015b, Power meter circuit pc board ass'y
Q502, Q602	222027	STK-1040SL, Power amplifier IC	U5	12690578	NADIS-1178, Selector tape monitor and loudness indicator pc board ass'y
T901	230615	NPT-780D, Power transformer (D)			
	230616	NPT-780G, Power transformer (G)			
	230617	NPT-780DG, Power transformer (W)			
	230621	NPT-780Q, Power transformer (Q)			
R155, R166	5104119	N16RDT41C250KW100KBT35H, Volume/Balance control variable resistor			
R266					
R514, R614	441623914	RS1WBJ390, Metal oxide film resistors			
S1	25030226	NRS-144-30F, Speaker selector switch			
S901	25035321 or 25035135	NPS-111-L285P, or NPS-111-L100P, Power switch (D)			
	25035322 or 25035176	NPS-111-L286P or NPS-111-L140, Power switch (G)			
	25035322	NPS-111-286P, Power switch (W)			
	25035136	NPS-121-L101P, Power switch (Q)			

### NOTE

(D): Only 120V model  
 (G): Only 220V model  
 (W): Only 120V/220V model  
 (Q): Only 240V model

**SCHEMATIC DIAGRAM**  
MODEL A-08 D/W



## PRINTED CIRCUIT BOARD — PARTS LIST

### POWER AMPLIFIER AND POWER SUPPLY PC BOARD (NAAF-1423)-PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	<b>ICs</b>	
Q501, Q601	222026	STK-3042
Q502, Q602	222027	STK-1040SL
Q503, Q603	222502	NJM-4558DX
	<b>Transistors</b>	
Q951	2211255	2SC1815 (GR)
Q952	2211254	2SC1815 (Y)
	<b>Diodes</b>	
D911-D914	223863	GP-30DL
D917, D918	224119	GZA-18L
D919	223862	WL01
D951, D952	223133	DS-442X
	<b>Capacitors</b>	
C501, C601	352784799	0.47 $\mu$ F, 50V, Elect.
C503, C518	352780109	1 $\mu$ F, 50V, Elect.
C519, C603		
C510, C511	352750479	4.7 $\mu$ F, 25V, Elect.
C512, C513		
C601, C611		
C612, C613		
C515, C517	352780479	4.7 $\mu$ F, 50V, Elect.
C615, C617		
C913, C914	3504153	8200 $\mu$ F, 50V, Elect.
C915, C916	352764709	47 $\mu$ F, 35V, Elect.
C917, C918	352751019	100 $\mu$ F, 25V, Elect.
C919	352741029	1000 $\mu$ F, 16V, Elect.
C921, C922	352781019	100 $\mu$ F, 50V, Elect.
C951	352744709	47 $\mu$ F, 16V, Elect.
C953	352780339	3.3 $\mu$ F, 50V, Elect.
	<b>Resistors</b>	
R156, R160	5148045A	N16RQM11C110K180K30, Variable, Bass control
R256, R260		
R163, R263	5148046A	N16RGM11C219K30, Variable, Treble control
R506, R606	441624794	0.47 $\Omega$ , 1W, Metal oxide film
R507, R607	441520474	4.7 $\Omega$ , 1/2W, Metal oxide film
R911, R912	441525614	560 $\Omega$ , 1/2W, Metal oxide film
R913, R914	441524714	470 $\Omega$ , 1/2W, Metal oxide film
R915, R916	441521014	100 $\Omega$ , 1/2W, Metal oxide film
R918	441527514	750 $\Omega$ , 1/2W, Metal oxide film
	<b>Relay</b>	
RL951	25065140	NRL-2P5ADC12-06, Speaker
	<b>Switches</b>	
S1-S3	25035258	NPS-342-L222, Selector
S5, S6	25035271	NPS-242-L235, Tape monitor/Loudness
K1	25065127 or 25065211	1P-105A-100 or 17AM028A-250, Thermal
	<b>Fuseholders</b>	
	250113	SN5051
	25050065	YSH403T (G)

### EQUALIZER AMPLIFIER PC BOARD (NAEQ-1425) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	<b>ICs</b>	
Q101, Q201	222605	TA7322P
	<b>Capacitors</b>	
C104, C204	352723319	330 $\mu$ F, 6.3V, Elect
C109, C110	352751019	100 $\mu$ F, 25V, Elect.
	<b>Switch</b>	
S8	25065167	NSS-6376, CART. SEL.

### PILOT LAMP PC BOARD (NAPL-1014b) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
PL913	210065B	12V, 150mA, Lamp

### POWER METER CIRCUIT PC BOARD (NAME-1015b) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	<b>Diodes</b>	
D551, D552	223133	DS-442X
D651, D652		
D553, D554	2231031	1N60 (ONK)
D653, D654		
	<b>Capacitors</b>	
C551, C651	352741009	10 $\mu$ F, 16V, Elect.
C552, C652	352750479	4.7 $\mu$ F, 25V, Elect.
	<b>Resistors</b>	
R551, R651	441521524	1.5k $\Omega$ , 1/2W, Metal oxide film
R934	441521804	18 $\Omega$ , 1/2W, Metal oxide film
S553	5215043	N08HR2KBC, Semi-fixed

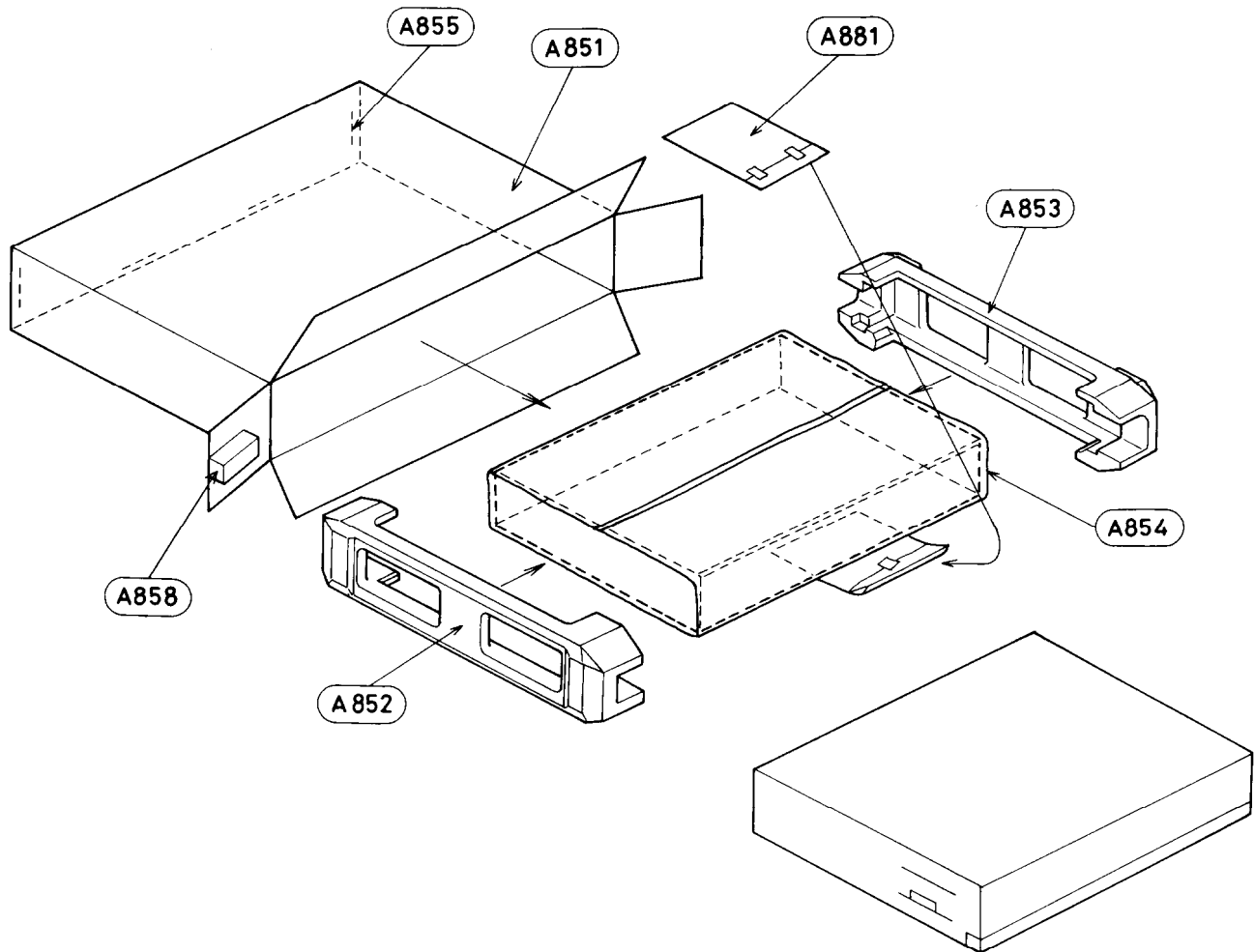
### SELECTOR AND TAPE MONITOR AND LOUDNESS IN- DICATOR PC BOARD (NADIS-1178) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D921-D923	225085	SLP-253B, LED
D925, D926	225084	SLP-153B, LED

#### NOTE

(G): Only 220V model

## PACKING PROCEDURES



REF. NO.	PARTS NO.	DESCRIPTION
A851	29050568	Master carton box
A852	29090540B	Pad, left
A853	29090541A	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
	29340622	Instruction manual (D)
	29340623	Instruction manual (G) (W) (Q)
	29365006-4	Warranty card (U)
	29365005-3	Warranty card (V)
	29358002	Service station list (U)
	29100006	350X250mm, Poly bag
	25055040	CV-K-2, Conversion plug (W)

### NOTE

(U): Only U.S.A model  
 (V): Only West Germany model  
 (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