

NAD **SERVICE**
MANUAL

2240PE
POWER AMPLIFIER

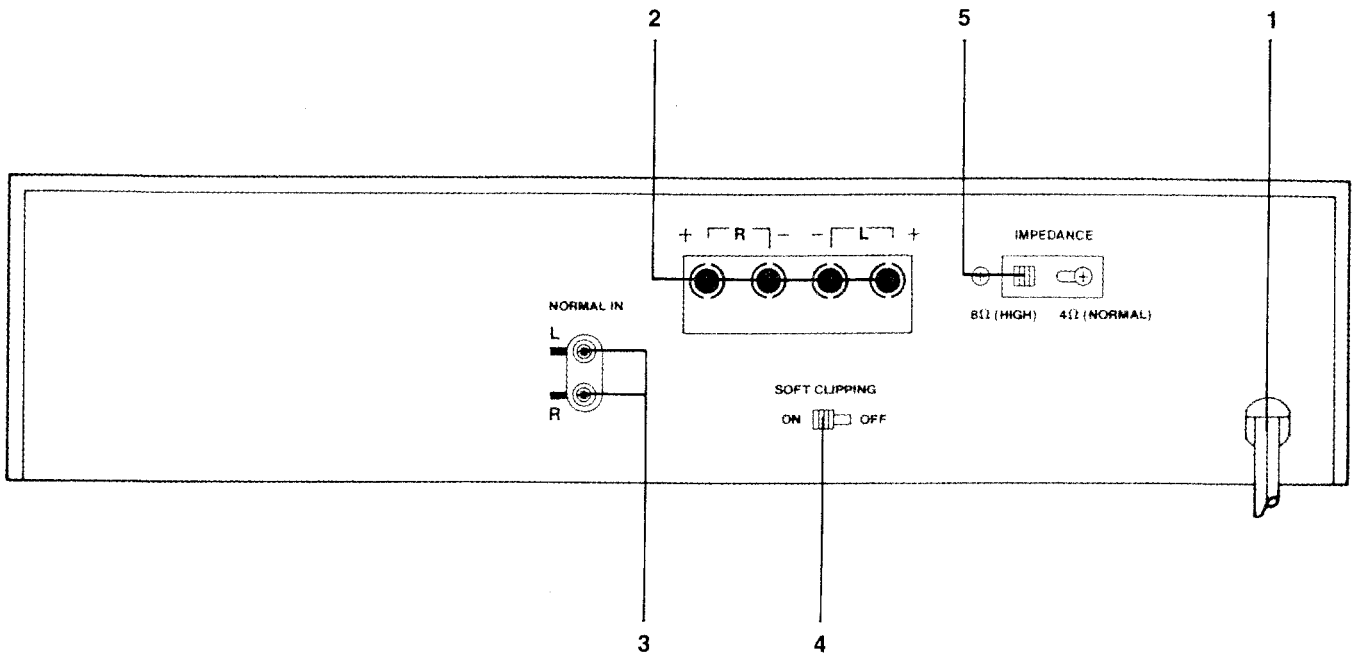
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REAR PANEL

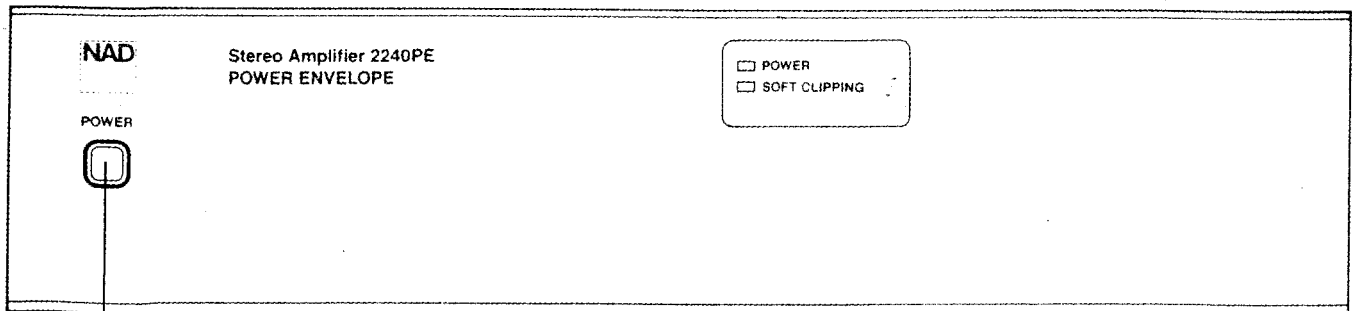
- 1. AC Line Cord.
- 2. Speakers.
- 3. Normal Inputs.
- 4. Soft Clipping.
- 5. Speaker Impedance.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION TO REDUCE
THE RISK OF ELECTRIC
SHOCK, DO NOT REMOVE
COVER (OR BACK).
NO USER-SERVICEABLE
PARTS INSIDE. REFER
SERVICING TO QUALIFIED
SERVICE PERSONNEL.



FRONT PANEL

- 1. Power.



Specifications

NAD 2240PE Stereo Amplifier

Note: Specifications are measured in accordance with EIA Standard RS-490 (IHF A-202). Measurements referred to 8 ohm are taken with the Speaker Impedance selector set to 8 ohm (High). Measurements for 4 and 2 ohm are taken with impedance selector at 4 ohm (Normal).

Power Amplifier Section

CONTINUOUS AVERAGE POWER

OUTPUT AT 8 OHM (minimum RMS power per channel, both channels driven, with no more than the rated distortion)		40W(16 dBW)
Rated distortion (THD), 20 Hz - 20 kHz		0.03%
Clipping power, 1 kHz (maximum continuous power per channel)		50 W
Dynamic Headroom at 8 ohm		+6 dB
Dynamic power (maximum short-term power per channel)	8 ohm	160 W
	4 ohm	200 W
	2 ohm	250 W
Damping factor		>50
Slew factor		>50
Slew rate		15V/usec
T.H.D. and SMPTE I.M. distortion from 250 mW to rated output		<0.03%
IHF I.M. (CCIF IM) and T.I.M. distortion at rated output		<0.03%
Input impedance		22 kohm
Input sensitivity for 1 Wa/40 W out		160 mV/1.0 V
Power amp gain		25 dB (18X)
Low Level (audio muting)		-20 dB
Physical Specifications		
Width x Height x Depth		42 x 10.8 x 38 cm. 16.5 x 4.25 x 15 in.
Net Weight		6.425 kg
Shipping Weight		7.72 kg
Power Consumption		50/60 Hz at 110, 120, 220, or 240 VAC 200 W

ALIGNMENT METHOD

AUDIO SECTION 2240PE

IMPORTANT

Speaker Impedance switch should be in 8 ohm position while adjusting center voltage and idling current.

INITIAL ADJUSTMENT (No load connected)

A. CENTER VOLTAGE

1. Connect DC millivoltmeter to L channel output terminals.
2. Turn on and adjust to $0\text{ V} \pm 30\text{mV}$ with VR401 (10KB). Connect DC millivoltmeter to R channel output terminals and adjust VR402 to $0\text{ V} \pm 30\text{mV}$.

B. IDLING CURRENT

1. Remove solder short across R461 and R462.
2. Connect DC millivoltmeter across R471 (1 ohm) (output transistor's collector resistor) and adjust VR403 (1KB) for 26 - 30mV reading on meter. Repeat adjust with VR404 (1KB), connecting meter across R472 (1 ohm).
3. leave power on for minimum 5 minutes.

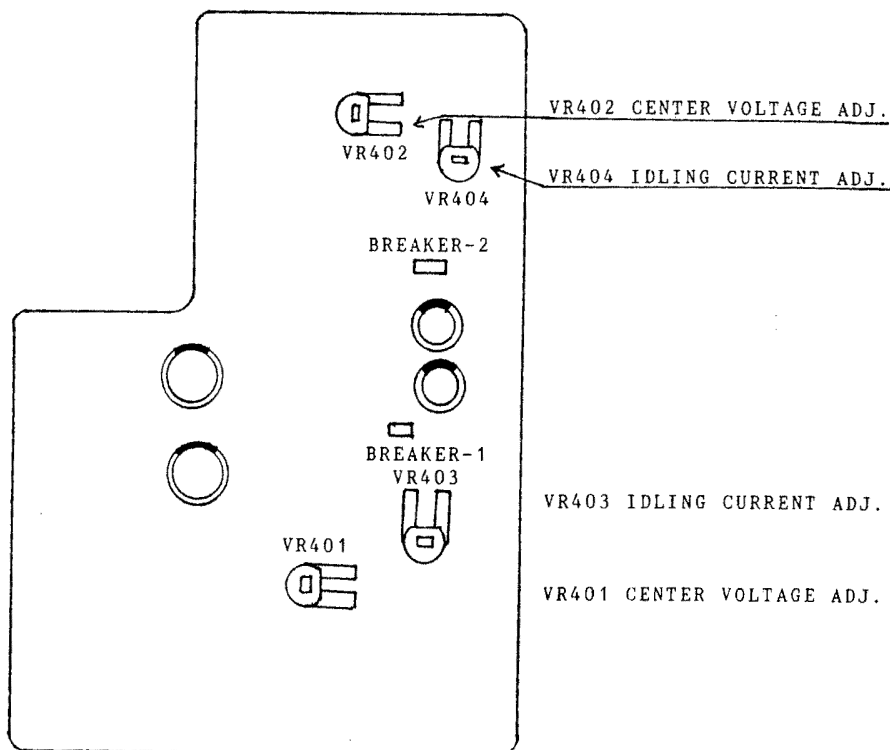
FINAL ADJUSTMENT

C. CENTER VOLTAGE

1. Repeat step A above.

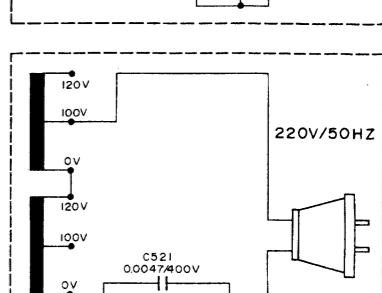
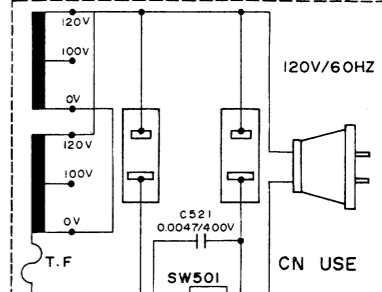
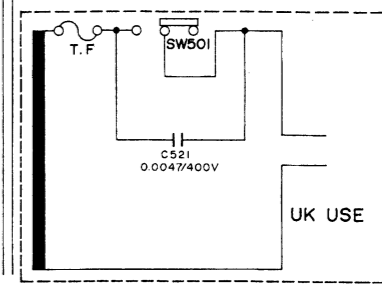
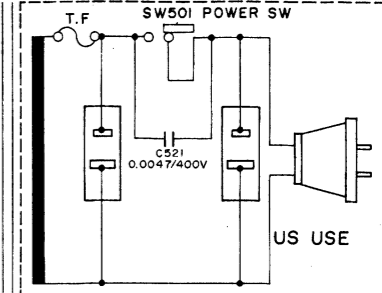
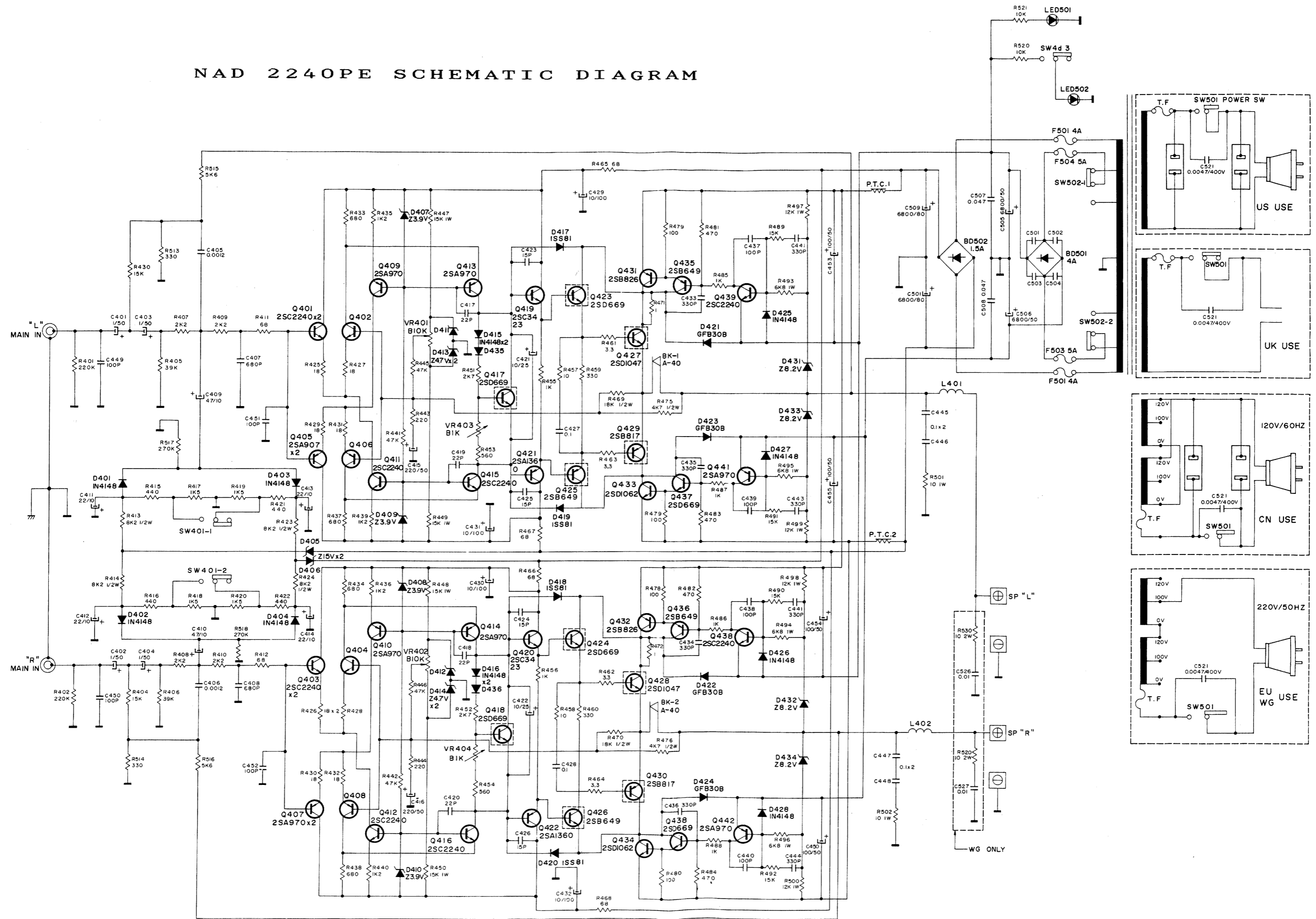
D. IDLING CURRENT

1. Repeat step B and adjust with VR403, VR404 for 30mV reading on meter.
2. After the alignment is finished, 1 ohm resistor R471, R472 is shorted by solder short.



AMPLIFIER ADJUSTMENT POINTS.

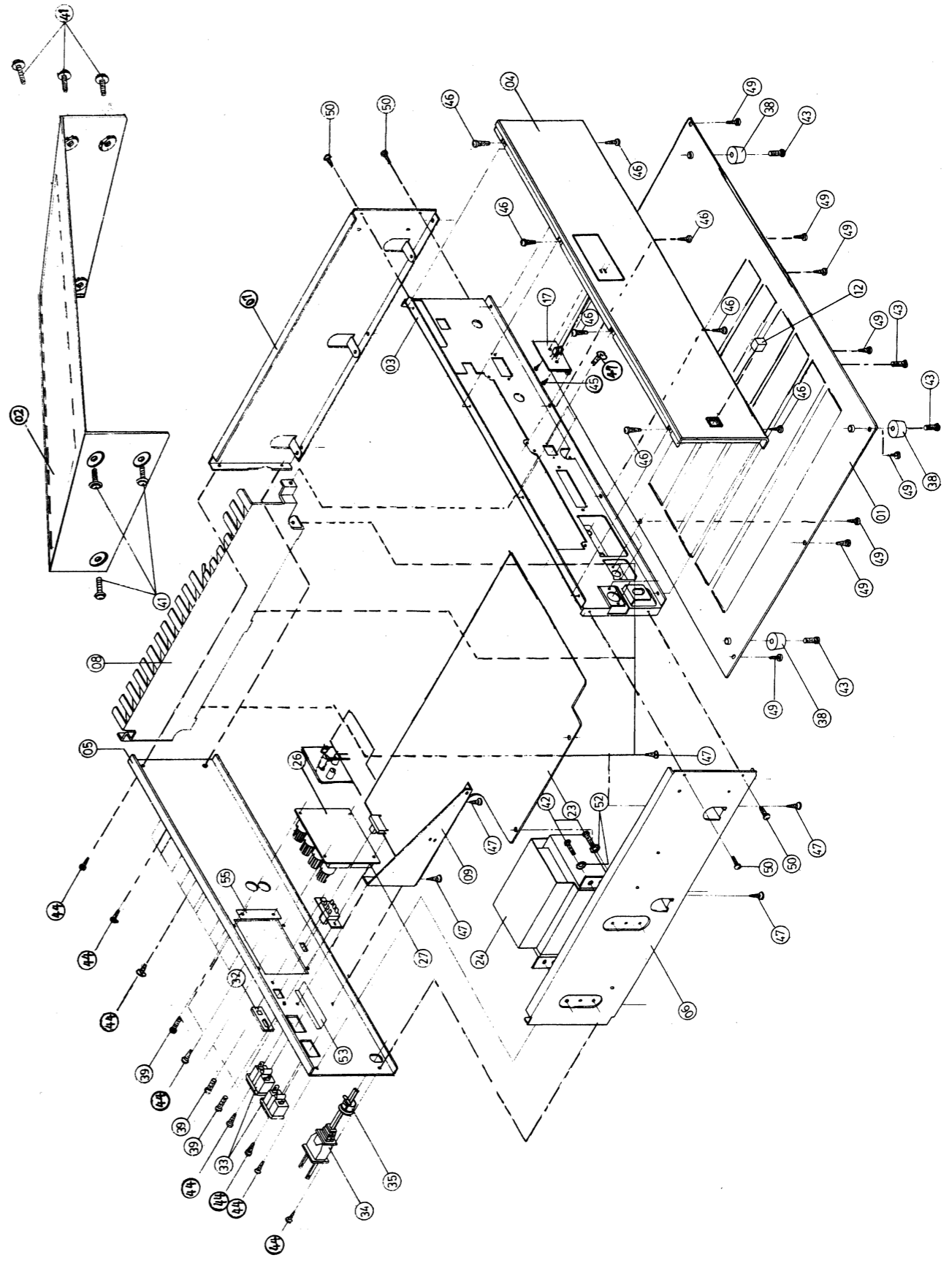
NAD 2240PE SCHEMATIC DIAGRAM



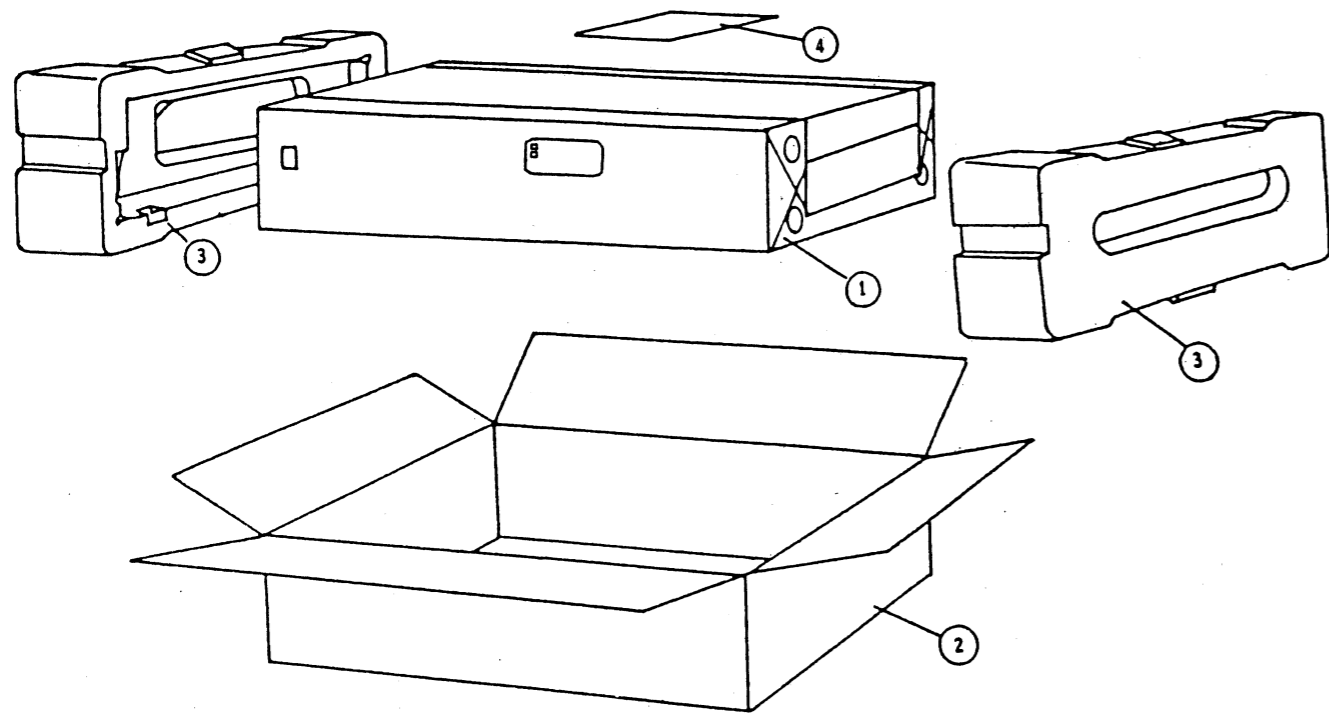
FR	GP	UK	EU	AS	SA	JP	PARTS NUMBER	DESCRIPTION	SPECIFICATION	Q'TY	UNIT
US	CN	WG	EP	UT	JP		U182S033H40	C401	50V 1	4	PCS
							U180Y041H01	C415 C416	50V 220	2	PCS
							U180S016H01	C505 C506	50V 6800	2	PCS
							U180Y038H01	C509 C510	80V 680Q	2	PCS
							U182S022H88	C429 C430 C431 C432	100V 1C	4	PCS
							L243C092H46	LEAD-TAPE, JW306	2P	1	PCS
							L243C092H42	LEAD-TAPE, JW307	2P	1	PCS
							U242C626H20	LEAD-SHIELD	BLU	1	PCS
							U243C592H32	LEAD	RED	1	PCS
							U070S670H01	SVCS-UL, 10MM*20 PCS	1 DIA	0.2	M
							U070S670H02	10MM*2	2 DIA	0.2	M
							U838S101H01	BAND		3	PCS
							U085S093H02	LOCTK-TIGHT	ADHESIVE	0.5	G
							U085S094H07	HOT MELT	NO.575	0.5	G
							U085S091H13	CEMEDINE	KS-609	0.6	G
							U091S650H18	SILICONE GEEASE	12 DIA	0.5	G
							U070S670H11	SVCS-UL	1/3W 3.3-J	16.5	M/M
							U103S140H60	R-CARBON	1/3W 68-J	0.1	PCS
							U103S140H06	PIN		0.1	PCS
							L241A039H16	PCB-AMP	(LED)	2	PCS
							L268Y026H01	POWER LED (GRN), LE-DIODE	SE-9421D	1	PCS
							L268Y027H01	SOFT CLIPPING (VEL)	SE-9431D	1	PCS
							L103Y022H31	R-CARBON, R521	1/4W 10K-J	1	PCS
							L580A002H01	COVER-BOT'		1	PCS
							L771D006H01	FOOT RUBBER		4	PCS
							L851D056H01	LABEL-QA		1	PCS
							L552D013H01	CUSHION		2	PCS
							L739D001H02	STOPPER-WASHER		4	PCS
							U650S025H31	SCREW-F, FOOT-RUBBER FIX	M4*10	1	PCS
							L831D003H01	BAG-POLY		1	PCS
							U096S004H01	CARD-ADDENDUM		0.03	M
							L871B003H75	TAPE, 30MM*1 PCS	W.12	1	PCS
							L450Y002H01	INSTRUCTION	BOOK	1	PCS
							L850C007H01	PLUG		1	PCS
							L243Y009H01	WARRANTY CARD		1	PCS
								LEAD-RCA PLUG		1	PCS

ITEM	FARTS NO.	NAME	Q'TY
01	L580A002H01	COVER BOTTOM	1
02	L561A010H01	CABINET	1
03	L582A001H01	CHASSIS, FRONT SUB	1
04	L702A047H01	PANEL, FRONT	1
05	L582A011H01	PANEL, REAR	1
06	L582A011H01	PANEL, REAR	1
07	L582A011H01	PANEL, REAR	1
08	L582A011H02	PANEL, REAR	1
09	L582A011H03	PANEL, REAR	1
10	L582A011H02	PANEL, REAR	1
11	L582A011H02	PANEL, REAR	1
12	L582A011H02	PANEL, REAR	1
13	L547B005H01	FRAME (L)	1
14	L547B005H01	FRAME (R)	1
15	L565B005H01	HEAR SINK	1
16	L541C0017H01	BRACKER, PCB SUPPORT	1
17	L704D061H02	NOB POWER	1
18	L241B092660	PCB ASS'Y MAIN (LED)	1
19	L241B120G01	PCB ASS'Y MAIN	1
20	L350Y083H01	TRANSFORMER, MAIN POWER	1
21	L350Y087H01	TRANSFORMER, MAIN POWER	1
22	L350Y087H01	TRANSFORMER, MAIN POWER	1
23	L350Y088H01	TRANSFORMER, MAIN POWER	1
24	L350Y088H01	TRANSFORMER, MAIN POWER	1
25	L241B121G01	PCB ASS'Y BINDING POSTS	1
26	L241B121G02	PCB ASS'Y BINDING POSTS	1
27	L452C001G01	TERMINAL-SPK	1
28	L452C001G02	TERMINAL-SPK, for EU	1
29	L703D027H01	PLATE SWITCH LOCK	1
30	L449Y002H01	AC SOCKET	2
31	L449Y002H01	AC SOCKET	2
32	L449Y002H01	AC SOCKET	2
33	L449Y002H01	AC SOCKET	2
34	L242Y501H01	AC CORD	1
35	L242Y501H01	AC CORD	1
36	L242Y501H01	AC CORD	1
37	L242Y501H01	AC CORD	1
38	U242C809H19	AC CORD	1
39	U242C809H19	AC CORD	1
40	U242C809H19	AC CORD	1
41	U242C809H19	AC CORD	1
42	U242C809H19	AC CORD	1
43	U242C809H19	AC CORD	1
44	U650S063H95	SCREW-PM4x10	6
45	U650S063H95	SCREW-PM4x10	6
46	U650S063H95	SCREW-PM4x10	6
47	U650S063H95	SCREW-TAP 1-3x6	4
48	U650S063H95	SCREW-TAP 1-3x6	4
49	U650S063H95	SCREW-TAP 1-3x6	10

EXPLODED VIEW



PICKING DIAGRAM



2240PE PACKING LIST

ITEM	NUMBER	NAME	Q'TY
1	L831D002H01	Bag-Poly	1
2	L800D003H05	Carton Individual	1
3	L813A006H01	Styro Packing	2
4	L871B003H75	Instruction	1
	OR L871B004H42	Instruction, WG only	

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