

NAD

SERVICE MANUAL



MONITOR SERIES

2100

POWER AMPLIFIER

SPECIFICATIONS

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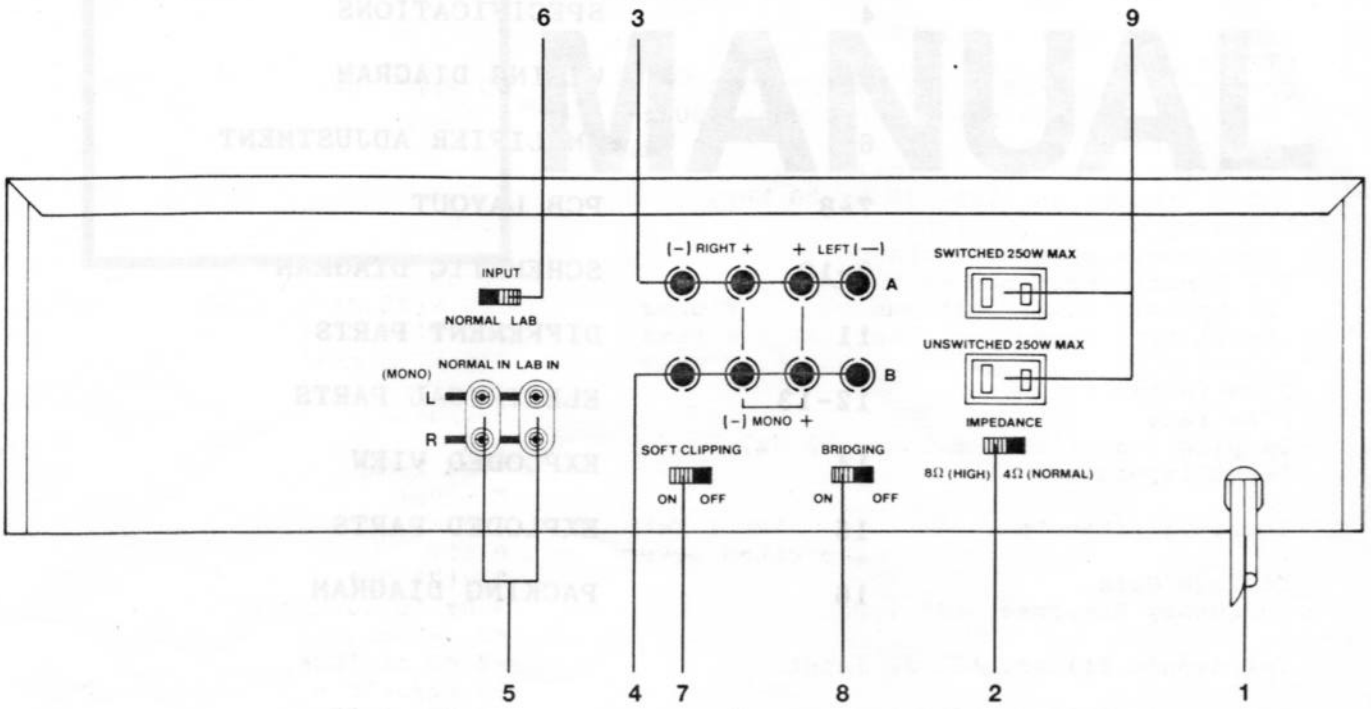
Subsonic Filter, NORMAL Input	+0, -3 dB
Subsonic Filter, NORMAL Input	3 dB at 20Hz
	22 dB/octave
	-3 dB at 20kHz
	18 dB/octave
Signal/Sound Ratio, A-weighted	117 dB re 1V/100mW
THD Total Harmonic Distortion, 20Hz-20kHz, from 250mW to rated output	<0.03%
IMD5 I.N. Intermodulation Distortion, 20Hz + 70Hz, 1, from 250mW to rated output	<0.03%
IMD I.N. IMDF in Distortion, 12 + 20 kHz at rated output	<0.03%
BRIEF (MONOPHONIC) MODE	
CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS, RMS power per channel, 20Hz-20kHz, channels driven, with no more than the rated distortion	150W(2) 7 dBW
Dynamic Headroom at 1 kHz	14 dB
Dynamic Power Maximum	100 W(17 dBW)

PHYSICAL SPECIFICATIONS



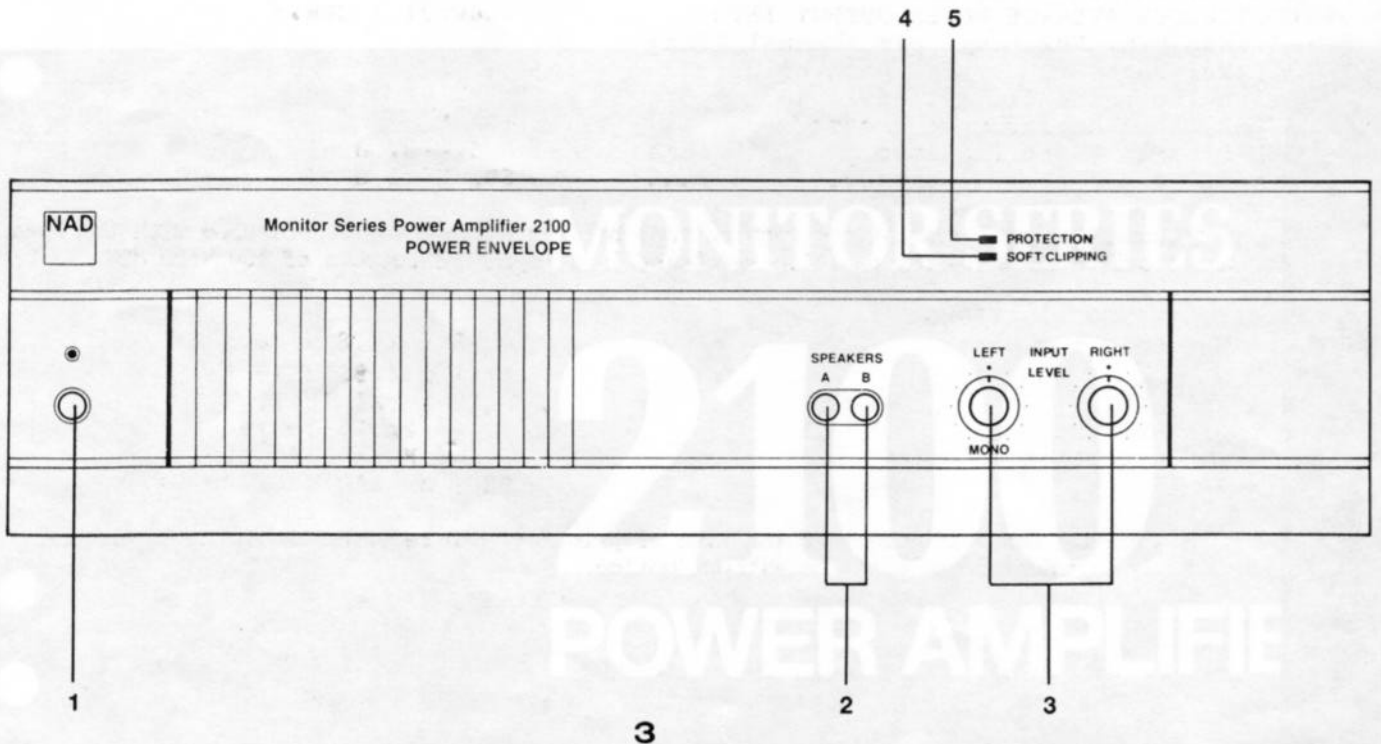
REAR PANEL

- | | |
|-----------------------------|-------------------------|
| 1. AC Line Cord. | 6. Lab/Normal Selector. |
| 2. Impedance Selector. | 7. Soft Clipping. |
| 3. Speakers A. | 8. Bridging. |
| 4. Speakers B. | 9. AC Outlets. |
| 5. Inputs (Normal and Lab). | |



FRONT PANEL

1. Power.
2. Speaker Selector.
3. Input Level.
4. Soft Clipping Indicator.
5. Protection Indicator.



SPECIFICATIONS

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

NAD 2100 POWER AMPLIFIERS

STEREO MODE :

CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS (Min. RMS power per channel, 20Hz- 20kHz, both channels driven, with no more than the rated distortion)		50 W (17 dBW)
Rated distortion (THD, 20 Hz-20 kHz)		0.03%
Clipping power, (maximum continuous power per channel)		70 W
IHF Dynamic Headroom at 8 ohms		+6 dB
IHF Dynamic Power (maximum short-term power per channel)	8 ohms	200 W (23 dBW)
	4 ohms	250 W (24 dBW)
	2 ohms	330 W (25 dBW)
Slew factor		>50
Slew rate		35V/usec
Damping factor (ref. 8 ohms, 50 Hz)		100
Input impedance		R=20 kohm C=600pf
Input sensitivity	for 1 Watt for rated power	120 mV 0.85V
Voltage Gain		23x (27 dB)
Frequency Response, LAB Input		3 Hz to 100kHz +0, -3 dB
Infrasonic Filter, NORMAL Input		-3 dB at 10Hz, 12 dB/octave
Ultrasonic Filter, NORMAL Input		-3 dB at 60kHz, 12 dB/octave
Signal/Noise Ratio, A-weighted		100 dB ref. 1W 117 dB ref. rated power
THD (Total Harmonic Distortion, 20Hz-20kHz, from 250mW to rated output)		<0.03%
SMPTI I.M. (Intermodulation Distortion, 60Hz + 7kHz, 4:1, from 250mW to rated output)		<0.03%
IHF I.M. (CCIF IM Distortion, 19 + 20 kHz at rated output)		<0.03%

BRIDGED (MONOPHONIC) MODE :

CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS (Min. RMS power per channel, 20Hz- 20kHz, channels driven, with no more than the rated distortion)		150W (21.7 dBW)*
IHF Dynamic Headroom at 8 ohms		+6 dB
IHF Dynamic Power (maximum short-term power per channel)	8 ohms	500 W (27 dBW)
	4 ohms	660 W (28 dBW)

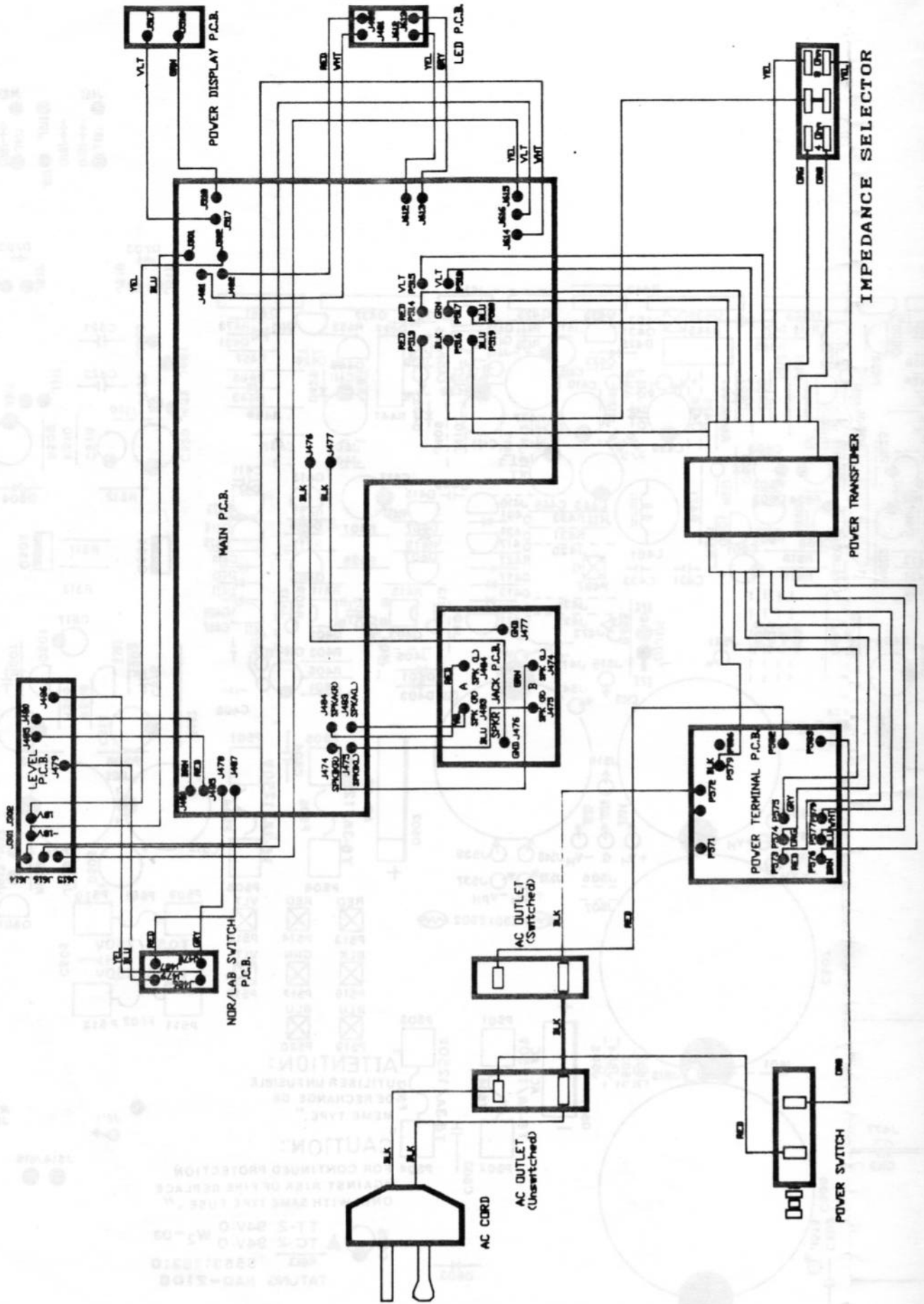
*In some countries local regulations require that bridged 8 ohm power be measured with the speaker impedance switch in the 4 ohm position resulting in bridged RMS outputs of 100 W (20 dBW).

PHYSICAL SPECIFICATIONS

Width x Height x Depth	43.5 x 10.8 x 38.1 cm. 17.1 x 4.25 x 15 in.
Net Weight	9.52 kg (21 lbs).
Shipping Weight	10.88 kg (25 lbs).
Power Consumption	50/60 Hz at 110, 120, 220, or 240 VAC/220 VA.

Specifications are those in effect at the time of printing. NAD reserves the right to change specifications or designs at any time without notice.

NAD-2100 WIRING DIAGRAM



MAIN AMPLIFIER ADJUSTMENT

IMPORTANT NOTES:

- 1) Before adjusting, remove input signal and load, and set Speaker impedance switch to 8 ohms (reset to 4 ohms when finished).
- 2) These adjustments are always necessary after repair to main amplifier.
- 3) After repair, it is recommended to use current limiter (70-100W lightbulb) in mains line, for initial turn-on.

A. CENTER VOLTAGE CHECK

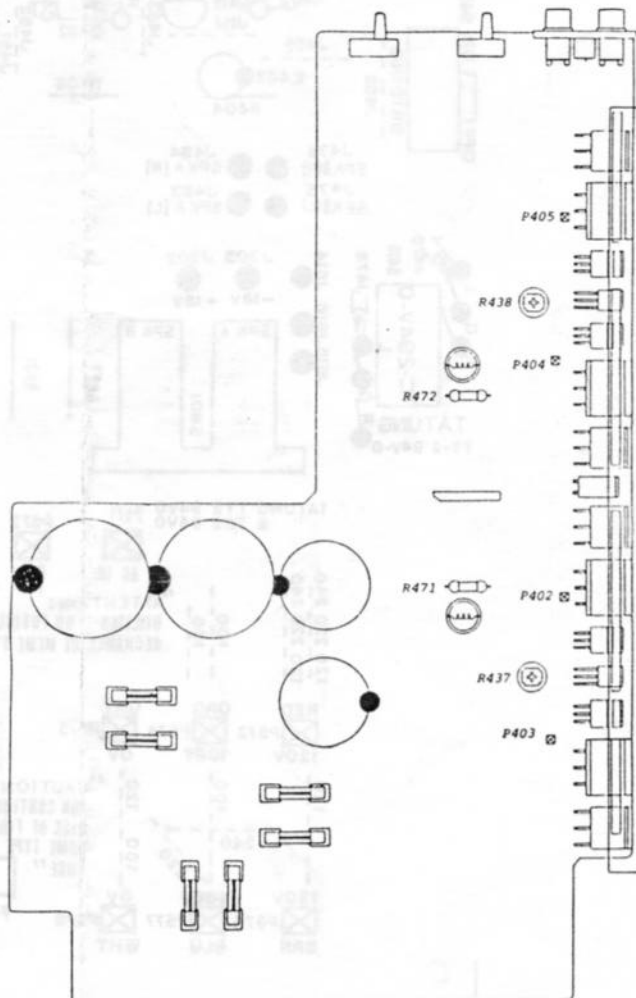
1. Connect DMM between Ground and R-471 (L channel)(R-472, R channel)(amplifier output).
2. Turn on, and read voltage. Specification $0V \pm 100mVDC$.

B. IDLE CURRENT ADJUSTMENT

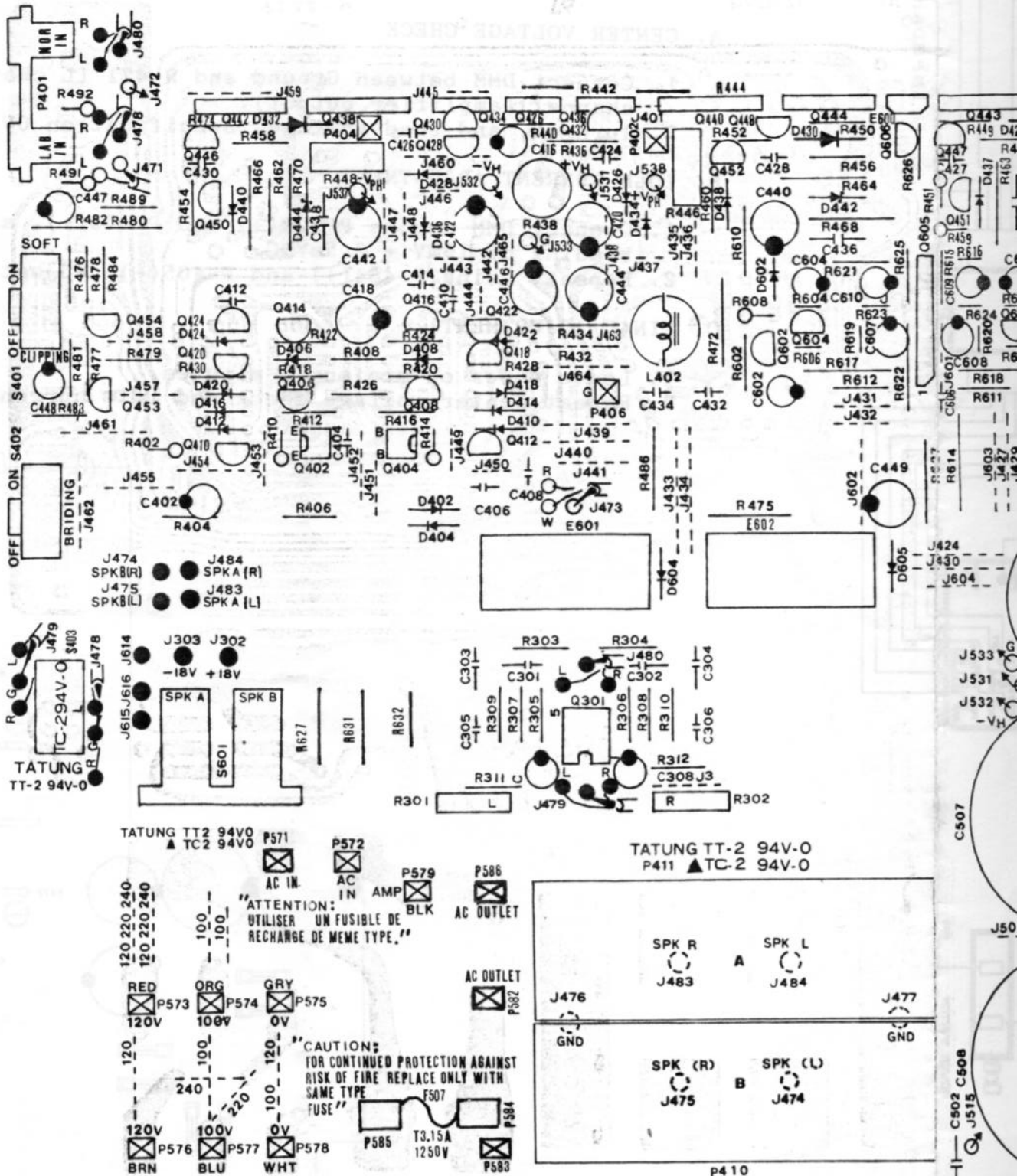
1. Connect DMM across P-402(+) and P-403(-), and adjust R-437 for reading of $15mV \pm 2.5mVDC$.
2. Repeat, using P-404(+) and P-405(-), adjust R-438.

C. FINAL ADJUSTMENT

1. Leave power on minimum 5 minutes.
2. Repeat center voltage check and idle current adjustments.

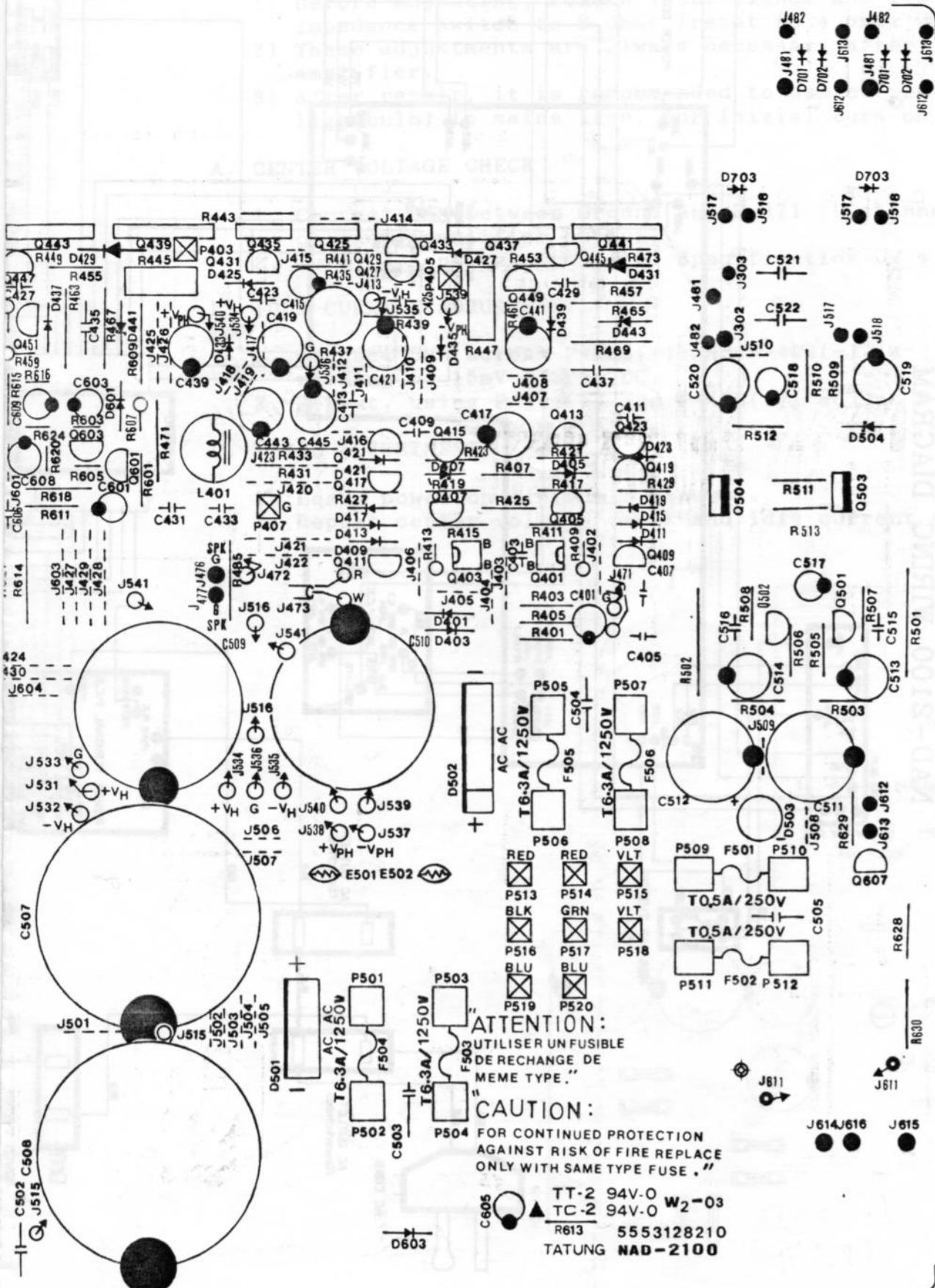


PCB LAYOUT



"ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE."

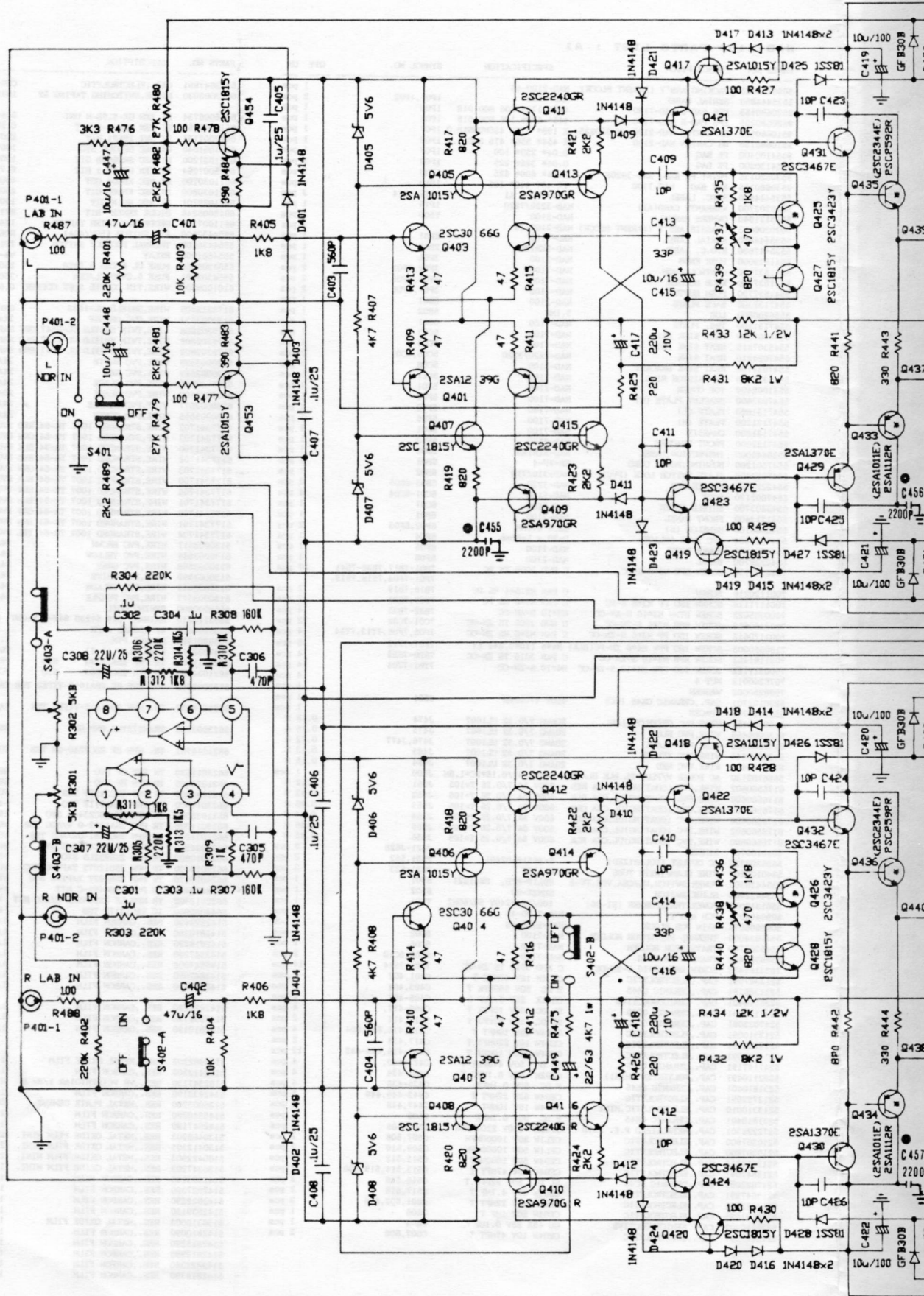
"CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE REPLACE ONLY WITH SAME TYPE FUSE"



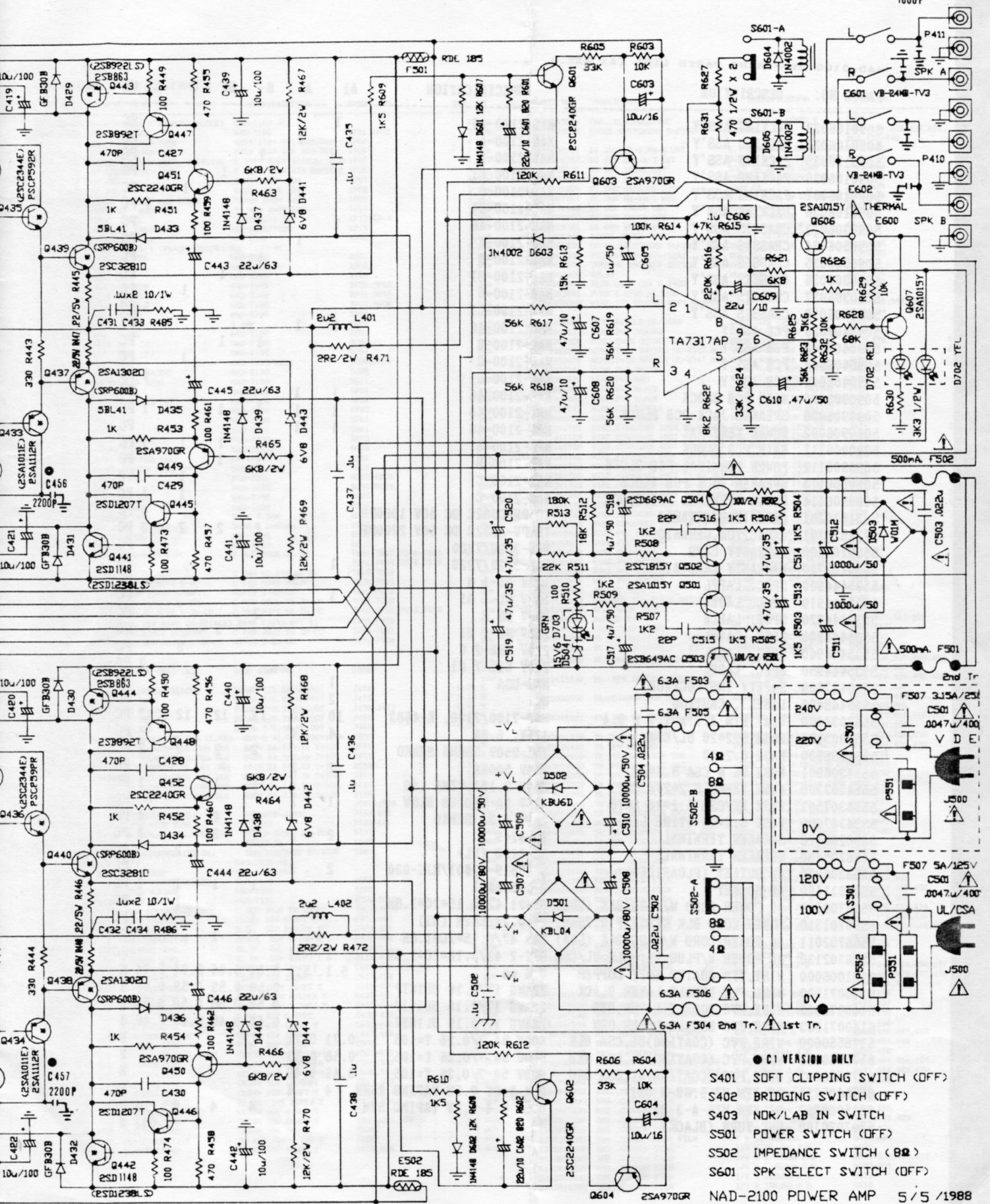
ATTENTION:
UTILISER UN FUSIBLE
DE RECHANGE DE
MEME TYPE."

CAUTION:
FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE REPLACE
ONLY WITH SAME TYPE FUSE."

TT-2 94V-0
TC-2 94V-0 W2-03
R613 5553128210
TATUNG NAD-2100



● C451 - C454
1000P



● C1 VERSION ONLY

- S401 SOFT CLIPPING SWITCH (OFF)
- S402 BRIDGING SWITCH (OFF)
- S403 NDK/LAB IN SWITCH
- S501 POWER SWITCH (OFF)
- S502 IMPEDANCE SWITCH (8Ω)
- S601 SPK SELECT SWITCH (OFF)

NAD-2100 POWER AMP 5/5/1988

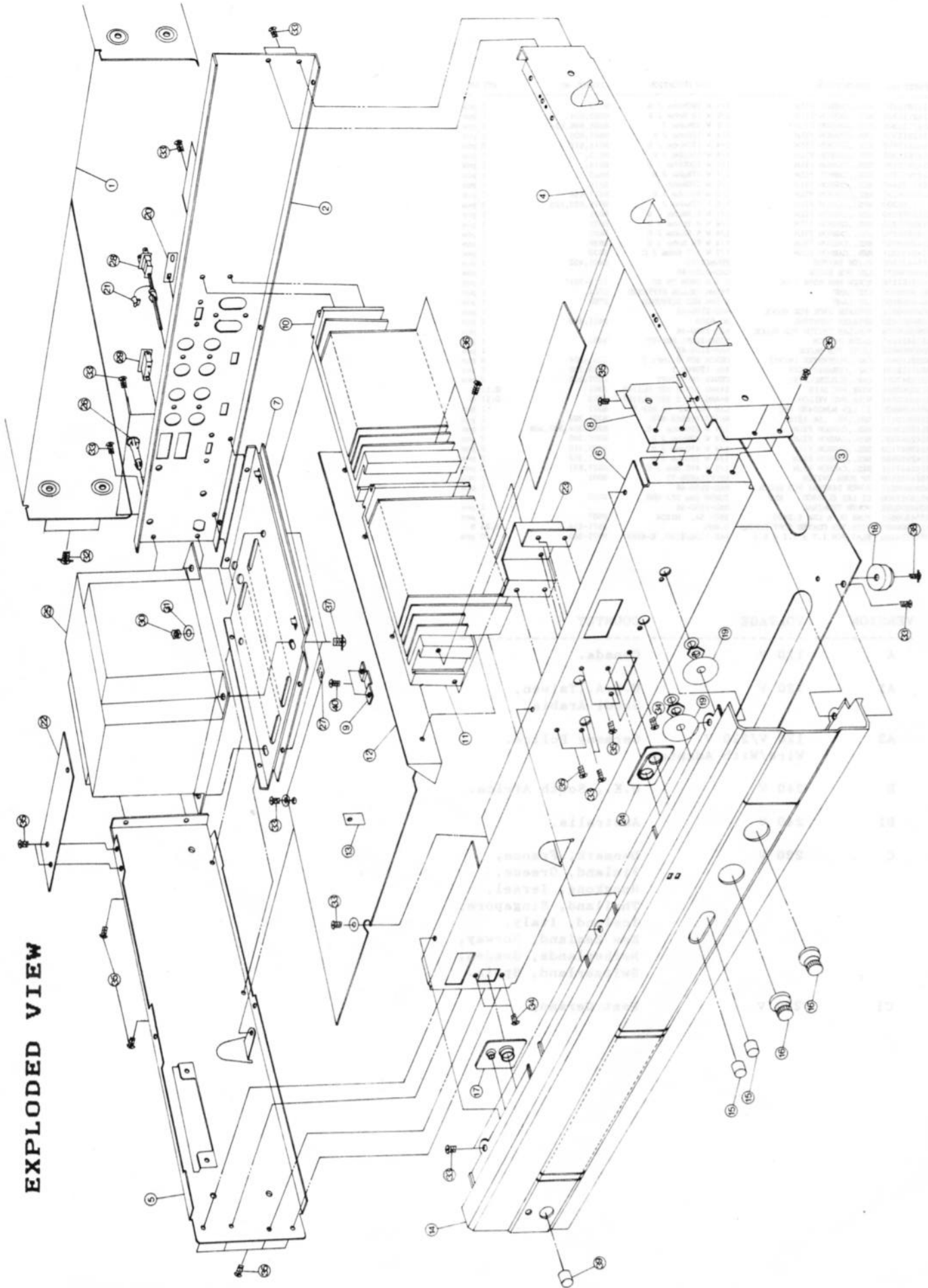
NAD-2100 DIFFERENT PARTS LIST (A1 REF.)

PARTS NO.	DESCRIPTION	SPECIFICATION	A1	A	B	B1	C	C1	UM
5090106023	PACKING ASS'Y	NAD-2100-46	1						PC
5090106034	PACKING ASS'Y	NAD-2100-A		1					PC
5090106035	PACKING ASS'Y	NAD-2100-B			1				PC
5090106036	PACKING ASS'Y	NAD-2100-B1				1			PC
5090106037	PACKING ASS'Y	NAD-2100-C					1		PC
5090106038	PACKING ASS'Y	NAD-2100-C1						1	PC
5090306023	CHASSIS ASS'Y	NAD-2100-46	1						PC
5090306034	CHASSIS ASS'Y	NAD-2100-A		1					PC
5090306035	CHASSIS ASS'Y	NAD-2100-B			1				PC
5090306036	CHASSIS ASS'Y	NAD-2100-B1				1			PC
5090306037	CHASSIS ASS'Y	NAD-2100-C					1		PC
5090306038	CHASSIS ASS'Y	NAD-2100-C1						1	PC
5090406029	PCB ASS'Y	NAD-2100-46	1	1					PC
5090406043	PCB ASS'Y	NAD-2100-B			1	1			PC
5090406044	PCB ASS'Y	NAD-2100-C					1		PC
5090406045	PCB ASS'Y	NAD-2100-C1						1	PC
5090906076	MAIN PCB BLOCK	NAD-2100-46	1	1					PC
5090906078	SPEAKER JACK PCB BLOCK	NAD-2100-46	1	1	1	1		1	PC
5090906092	POWER TERMINAL	NAD-2100-46	1	1					PC
5090906111	MAIN PCB BLOCK	NAD-2100-B			1	1	1	1	PC
5090906112	POWER TERMINAL PCB BLOCK	NAD-2100-B			1	1			PC
5090906113	SPEAKER JACK PCB BLOCK	NAD-2100-C					1		PC
5090906114	POWER TERMINAL PCB BLOCK	NAD-2100-C					1	1	PC
5231510201	CAPACITOR,CERAMIC	TS-PV-C032C DC 50V 1000PF						4	PC
5231522201	CAPACITOR,CERAMIC	TS-PV-C032C DC 50V 2200PF			2	2	2	3	PC
5535203600	MARRANTY CARD	NAD-3220/7220			1				PC
5535203700	MARRANTY CARD(A1)	NAD-3220/7220	1						PC
5535444900	SPEC. LABEL	120V UL-1 A		3					PC
5535444910	SPEC. LABEL	120V UL-1 A1	3						PC
5535444920	SPCE. LABLE	240V BS B			3				PC
5535444930	SPEC. LABEL	240V SA-2 B1				3			PC
5535444940	SPEC. LABEL	220V CEE-2 C					3		PC
5535444950	SPEC. LABEL	220V CEE-2 C1						3	PC
5535447800	SAFETY INSTRUCTION	NAD-USA	1						PC
5535448400	LABEL , CAUTION	UL	2						PC
5547034400	FLAT PIN 1.7 x 1.7 x 9.4	NAD-7100/2100, K-4683	10	10	12	12	12	12	PC
5554303401	FUSE 5.2*20 UL/CSA	125V, 6.3A	4	4					PC
5554306500	FUSE 5.2*20	T51 250V 500MA SEMKO			2	2	2	2	PC
5554306501	FUSE UL & CSA 5.2*20	250V 500MA	2	2					PC
5554307300	FUSE SEMKO 5.2*2#p 5ST	250V 3.15A TIME LAG			1	1	1	1	PC
5554307501	FUSE UL/CSA 5.2*20 5MT5	125V 5A MEDIUM BLOW	1	1					PC
5554307600	FUSE 5.2*20 (TINE LAG)	250V 6.3A SEMKO			4	4	4	4	PC
5556205420	SPEAKER TERMINAL	SO-6249	2	2	2	2			PC
5556205430	SPEAKER TERMINAL	SO-6250 (UL)					2		PC
5556308320	AC OUTLET (PLOARIZED)	S-I6519-02#01/MJC-030	2	2					PC
5556311400	AC SOCKET	S-I6536#01			1	1	1	1	PC
5556700131	AC POWER CORD W/PLUG BLK (VDE)	PL-21 42/0.15*2C*1.8M					1	1	PC
5556701310	POWER CORD BLK GTBS-2F 0.75MM2	24/0.2*2C*2M (BS)			1				PC
5556702011	AC POWER CORD W/PLUG BLK (SAA)	SAA 42/0.15*2C*1.8M				1			PC
5556702130	AC POWER W/PLUG PL. BLK UL/CSA	SPT-2 41/0.16*2C*1.8M	1	1					PC
6101006000	WIRE,TIN COATED SOFT COPPER	0.6 mm	5.1	5.1	5.04	5.04	5.04	5.04	M
6140071900	WIRE,PVC DOUBLE-LAYER,BLACK	22AWG 17/0.16 UL1617			0.59	0.59	0.59	0.59	M
6140071922	WIRE,PVC DOUBLE-LAYER,RED	22AWG 17/0.16 UL1617			0.58	0.58	0.58	0.58	M
6140071933	WIRE,PVC DOUBLE-LAYER,ORN	22AWG 17/0.16 UL1617			0.46	0.46	0.46	0.46	M
6176560600	WIRE,PVC (COATING)UL,CSA BLK	600V 5A 7/0.26 T=105	0.71	0.71					M
6176560602	WIRE,PVC (COATING)UL,CSA RED	600V 5A 7/0.26 T=105	0.58	0.58					M
6176560603	WIRE,PVC (COATING)UL,CSA ORN	600V 5A 7/0.26 T=105	0.46	0.46					M
6615005734	DI ZEN UZ-5.6B-M UNI	5.4-5.8V 0.5W TAPING 26MM	4	4					PC
6615009757	DI ZEN HZ6-A-3 HIT	0.5W 5.4-5.7V TAPING 52M			4	4	4	4	PC
6707020100	PVC TUBE (BLACK)							.042	M

PARTS NO.	DESCRIPTION	SPECIFICATION	SYMBOL NO.	QTY UM
5142818490	RES., CARBON FILM	1/4 W 180Kohm J B	R513	1 pcs
5142110300	RES., CARBON FILM	1/6 W 10 Kohm J B	R603,604,	2 pcs
5142133300	RES., CARBON FILM	1/6 W 33Kohm J B	R605,606,624	3 pcs
5142812390	RES., CARBON FILM	1/4 W 12Kohm J B	R607,608	2 pcs
5142812490	RES., CARBON FILM	1/4 W 120Kohm J B	R611,612	2 pcs
5142815390	RES., CARBON FILM	1/4 W 15Kohm J B	R613,	1 pcs
5142810490	RES., CARBON FILM	1/4 W 100Kohm J B	R614,	1 pcs
5142847390	RES., CARBON FILM	1/4 W 47Kohm J B	R615	1 pcs
5142122400	RES., CARBON FILM	1/6 W 220Kohm J	R616,	1 pcs
5142856390	RES., CARBON FILM	1/4 W 56Kohm J B	R617,618	2 pcs
5142156300	RES., CARBON FILM	1/6 W 56Kohm J	R619,620,623	3 pcs
5142868290	RES., CARBON FILM	1/4 W 6.8Kohm J B	R621	1 pcs
5142882290	RES., CARBON FILM	1/4 W 8.2Kohm J B	R622	1 pcs
5142856290	RES., CARBON FILM	1/4 W 5.6Kohm J B	R625	1 pcs
5142868390	RES., CARBON FILM	1/4 W 68 Kohm J B	R628	1 pcs
5142433201	RES., CARBON FILM	1/2 W 3.3 Kohm J C	R630	1 pcs
5554431800	SLIDE SWITCH	FZUB22-10	S401,402	2 pcs
5090906077	LED PCB BLOCK	NAD-2100-46		1 pcs
7033161156	SCREW BRB M3*8 S-PC	C RUD 300B TS RC	7S15-7S17	3 pcs
6618009400	LED, LAMP	2*5MM YELLOW DIFFUSED	D701,	1 pcs
6618009100	LED, LAMP	2*5MM RED DIFFUSED	D702	1 pcs
5090906078	SPEAKER JACK PCB BLOCK	NAD-2100-46		1 pcs
5556205420	SPEAKER TERMINAL	SO-6249	P411,410	2 pcs
5090906079	NOR/LAB SWITCH PCB BLOCK	NAD-2100-46		1 pcs
5554431610	SLIDE SWITCH	SSSB022NB1-NB1-TT	S403	1 pcs
5090906090	LEVEL PCB BLOCK	NAD-2100-46		1 pcs
5222110491	CAP., PLOYESTER (MINI)	CG92M 50V 0.1MFJ T	C301-304	4 pcs
5247112191	CAP., CERAMIC CC45	50V 120PFK T	C305,306	2 pcs
5213347091	CAP., ELECTROLYTIC	CE34W 16V 47MFT	C307,308	2 pcs
6130003566	WIRE, PVC BLUE	24AWG 7/0.2 ATC ULL1107	J301	0.11 M
6130003544	WIRE, PVC YELLOW	24AWG 7/0.2 ATC ULL1107	J302	0.11 M
6644066600	IC LIN NUM2043D JRC	LIN PRE AMP *2 DIP 8	Q301	1 pcs
5169010473	RES., VR., SK-1216	RK163111R668-5FB	R301,302	2 pcs
5142822490	RES., CARBON FILM	1/4 W 220Kohm J B	R303,304,307,308	4 pcs
5142882390	RES., CARBON FILM	1/4 W 82Kohm J B	R305,306	2 pcs
5142847190	RES., CARBON FILM	1/4 W 470ohm J B	R309,310	2 pcs
5142810190	RES., CARBON FILM	1/4 W 100ohm J B	R311,312	2 pcs
5142447101	RES., CARBON FILM	1/2 W 470 ohm J C	R627,631	2 pcs
5554432100	2P PUSH SWITCH	SFUF21AE08-TT	S601	1 pcs
5090906091	POWER DISPLAY PCB BLOCK	NAD-2100-46		1 pcs
6618017300	DI LED EL103GD ELT	TOWER 2mm DIA GRN	D703	1 pcs
5090906092	POWER TERMINAL	NAD-2100-46		1 pcs
5554306501	FUSE UL & CSA 5.2*20	250V 5A, M1234	F507	1 pcs
6101006000	WIRE, TIN COATED SOFT COPPER	0.6MM	J571-574	0.24 M
5547034400	FLAT PIN 1.7 x 1.7 x 9.4	NAD-7100/2100, K-4683	P572-583	10 pcs

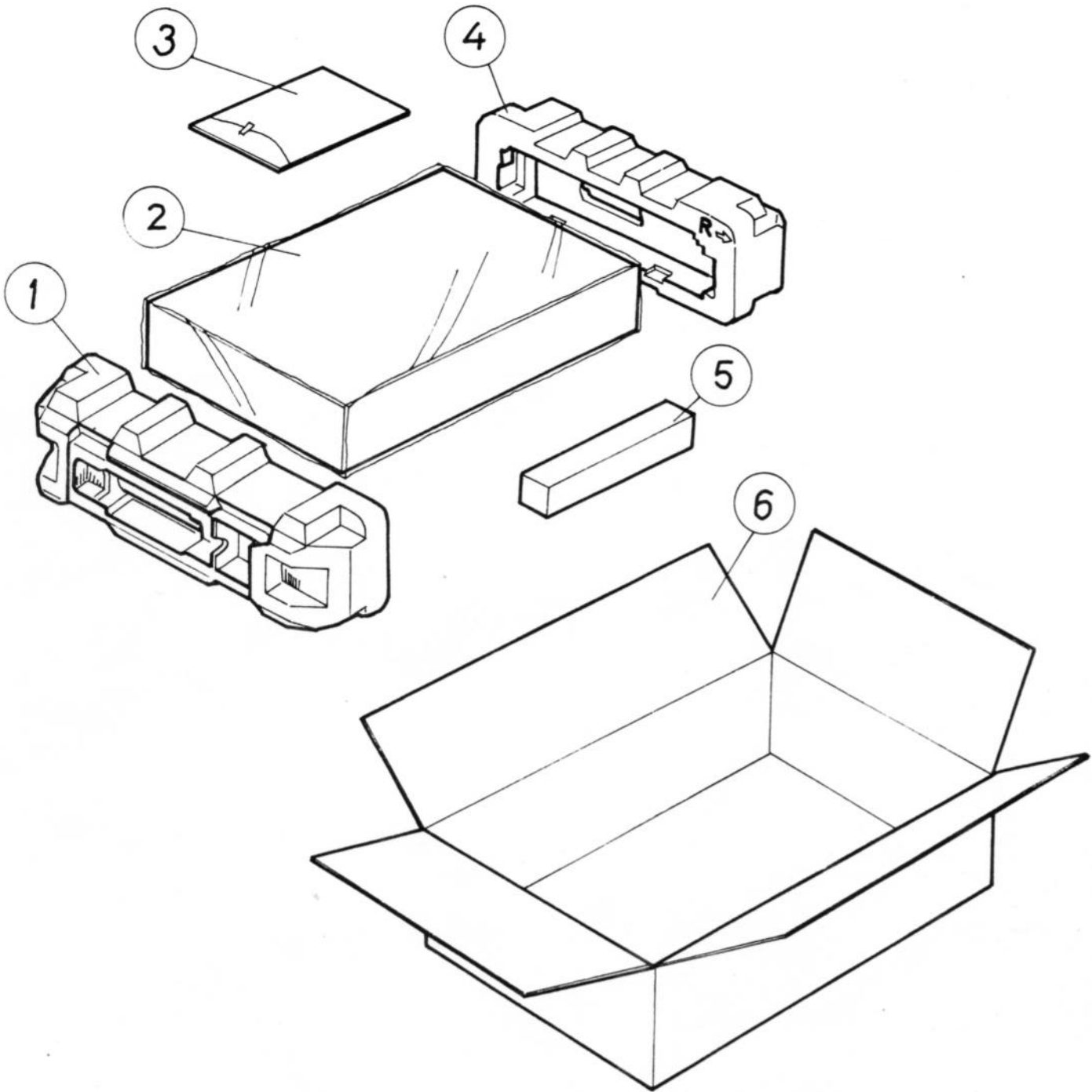
VERSION	VOLTAGE	COUNTRY
A	120 V	Canada.
A1	120 V	U.S.A.,Taiwen, Saudi Arabia.
A2	120 V/220 V Wire/With Adaptor	Germany Police.
B	240 V	U.K., South Africa.
B1	240 V	Australia.
C	220 V	Denmark, France, Finland, Greece, Hongkong, Israel, Thailand, Singapore, Iceland, Italy, New Zealand, Norway, Netherlands, Sweden, Switzerland, Spain.
C1	220 V	West Germany

EXPLODED VIEW



NAD-2100 EXPLODED PARTS LIST:			
ITEM	PARTS NO.	PARTS NAME	Q'TY
1	5541002400	TOP COVER	1
2	5547132300	BACK PLATE	1
3	5547131800	CHASSIS	1
4	5547131700	RIGHT PLATE	1
5	5547131600	LEFT PLATE	1
6	5547132000	FRONT BRACKET	1
7	5547131100	TRS. PLATE	1
8	5547033800	RIGHT BRACKET PLATE	1
9	5547034000	THERMAL PROTECTOR HOLDER	1
10	5545307800	HEAT SINK (A)	1
11	5545307810	HEAT SINK (B)	1
12	5545307700	TRATSISTOR HOLDER	1
13	5547024210	HEAT SINK	2
14	5541213400	FRONT PANEL	1
15	5541539000	PUSH KNOB	2
16	5541537510	CONTROL KNOB	2
17	5542226100	POWER BEZEL	1
18	5547802120	FOOT	4
19	5542006100	HEMELON (S)	2
20	5547528400	PLATE, SWITCH LOCK (PVC)	1
21	5547501200	BUSHING POWER CORD	1
22	5545403700	SHIELD COVER	1
23	5547034100	HEAT SINK BRACKET	1
24	5542226700	BEZEL	1
25	5561317000	POWER TRANSFORMER (EI-96)	1
26	5547530400	HOLDER-PCB	4
27	5532410700	SPACER	1
28	5556702130	AC OUTLET (POLARIZED)	1
29	5556308320	AC POWER W/PLUG PL.BLK UL/CS	2
30	7076260012	NUT 4	4
31	7098250002	WASHER	4
32	7190550003	SCREW M4*6 MS	6
33	7033161156	SCREW RUD M3*8 TS	26
34	7001171116	SCREW PAN M3*8 MS	6
35	7033160652	SCREW RUD M3*6 TS	24
36	7031161452	SCREW PAN M3*10 TS	4
37	7000311122	RUD M4*10	4
38	7000305022	SCREW RUD M3*10 TS	4
39	5541539000	POWER PUSH KNOB	1
40	7033161452	SCREW RUD M3*10 TS	14

PACKING DIAGRAM



PACKING LIST FOR NAD-3100/NAD-2100

ITEM	PARTS NO.	NAME	QTY
1	9520680155	POLYLON L.	1
2	9530680155	EPE BAG	1
3	5535122011	OWNERS MANUAL	1
4	9520680255	POLYLON R.	1
5	9520685155	POLYLON BAR	1
6	9510680155	CARTON	1

SERVICE MANUAL

2100
POWER AMPLIFIER

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NAD ELECTRONICS
BOSTON/LONDON