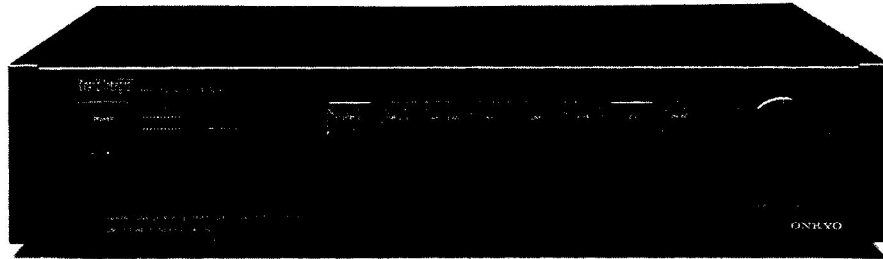


ONKYO SERVICE MANUAL

Stereo Preamplifier MODEL P-308



UD	120V AC, 60Hz
UG	220V AC, 50Hz
UQ	240V AC, 50Hz
UW	120V or 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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SPECIFICATIONS

Input Sensitivity and Impedance:	PHONO MC: 160 μ V/(100/220) ohms PHONO MM: 2.5mV/(47 kohms/100 kohms) CD, TUNER, LINE, TAPE PLAY: 150mV/20 kohms	Signal-to-Noise Ratio: PHONO MC: 81dB (IHF A-202) PHONO MM: 92dB (IHF A-202) CD: 101dB (IHF A-202)
Rated Output and Impedance:	TAPE REC: 150mV/1.2 kohms (PHONO) OUTPUT: 1.0V/160 ohms Max. 6V	Tone Control (Vol. -20dB): BASS: \pm 10dB at 20Hz TURN OVER FREQUENCY BASS: 450 Hz CONTRABASS: 200Hz BOOST ONLY
RIAA Deviation:	\pm 0.2dB, 20-20,000Hz	Filters: TREBLE: \pm 8dB at 20kHz HIGH CUT: (TREBLE min.): 6dB/oct, 7kHz
Frequency Response (CD, TUNER, LINE, TAPE):	+0, -3dB, 0.8Hz - 170kHz	Inputs: PHONO, CD, TUNER, LINE 1 & 2, TAPE PLAY 1, 2 & 3
Phono Overload:	PHONO MM: 210mV RMS at 1kHz, THD 0.05% PHONO MC: 13mV RMS at 1kHz, THD 0.05%	Outputs: TAPE REC OUT 1, 2 & 3 OUTPUT: 1 (fixed) 2 (variable)
Total Harmonic Distortion:	0.0008% at PHONO MM, 3V output 0.003% at PHONO MC, 3V output 0.0005% at CD, TUNER, LINE and TAPE, 3V output	Power Supply: Canadian models: AC 120V, 60Hz European models: AC 220V, 50Hz British and Australian models: AC 240V, 50Hz Worldwide models: AC 120V, 60Hz/ AC 220V, 50Hz
Intermodulation Distortion (CD):	0.003% (70Hz: 7kHz = 4:1)	Dimensions: 465(W) x 103(H) x 403(D) mm 18 5/16" x 4 1/16" x 15 7/8" Weight: 8.5 kg, 18.7 lbs.

Specifications and features are subject to change without notice.

PRECAUTIONS

1. Replacing the fuses

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

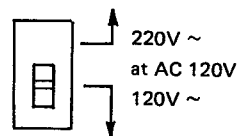
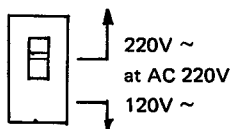
CIRCUIT NO.	PARTS NO.	DESCRIPTION
F901	252045	1A (ST-6), Primary fuse (120V, 120V/220V model)
F902	252063	0.5A-SE-EAWK, Primary fuse (220V, 120V/220V, 240V model)

2. Insulation resistance measurement (Only U.S.A. model)

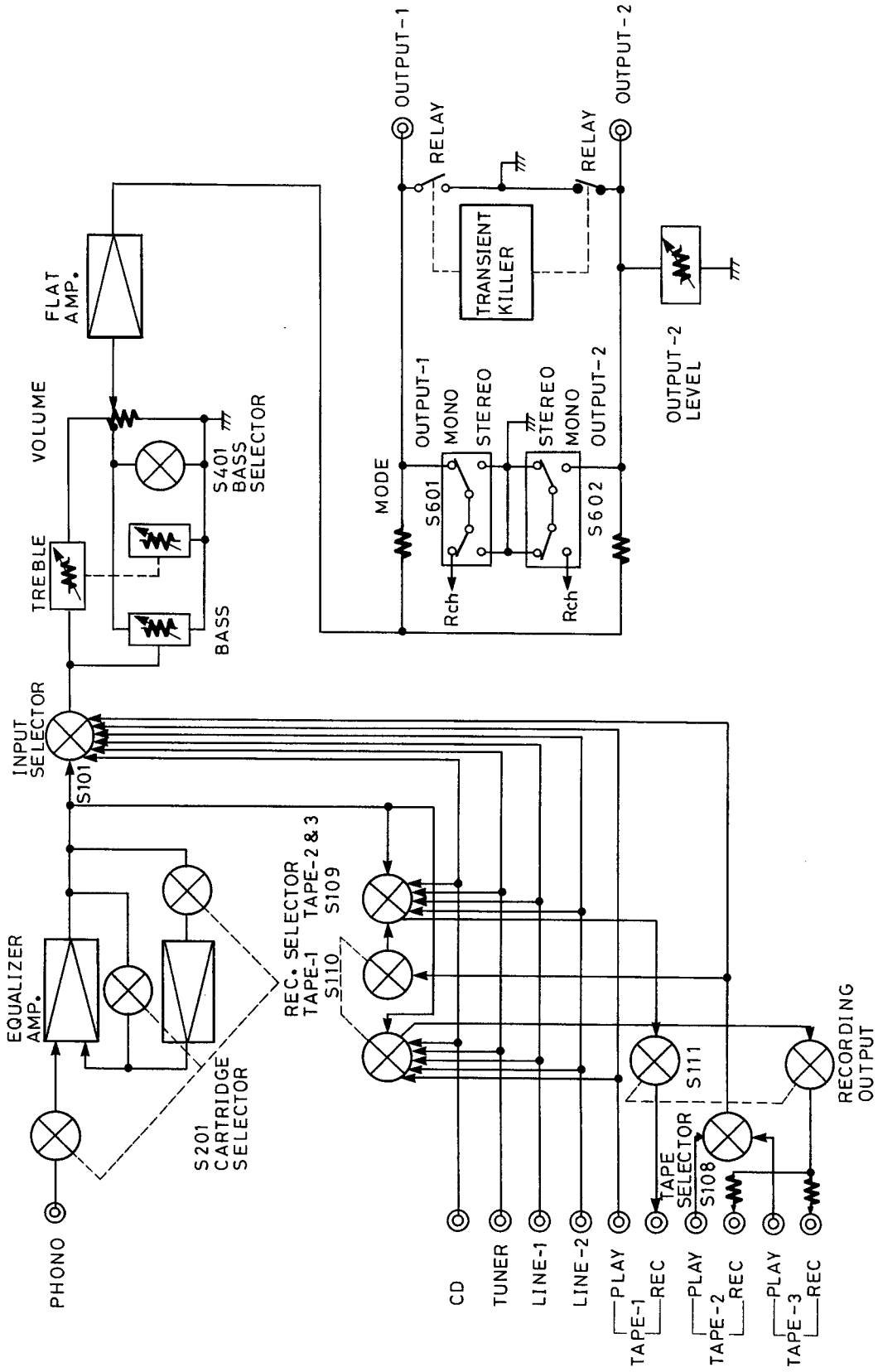
Connect the insulating-resistance tester between the plug of power supply cable and the terminal GND on the back panel. Specifications; More than 10 M Ω at 500V.

3. Voltage selector (rear panel)

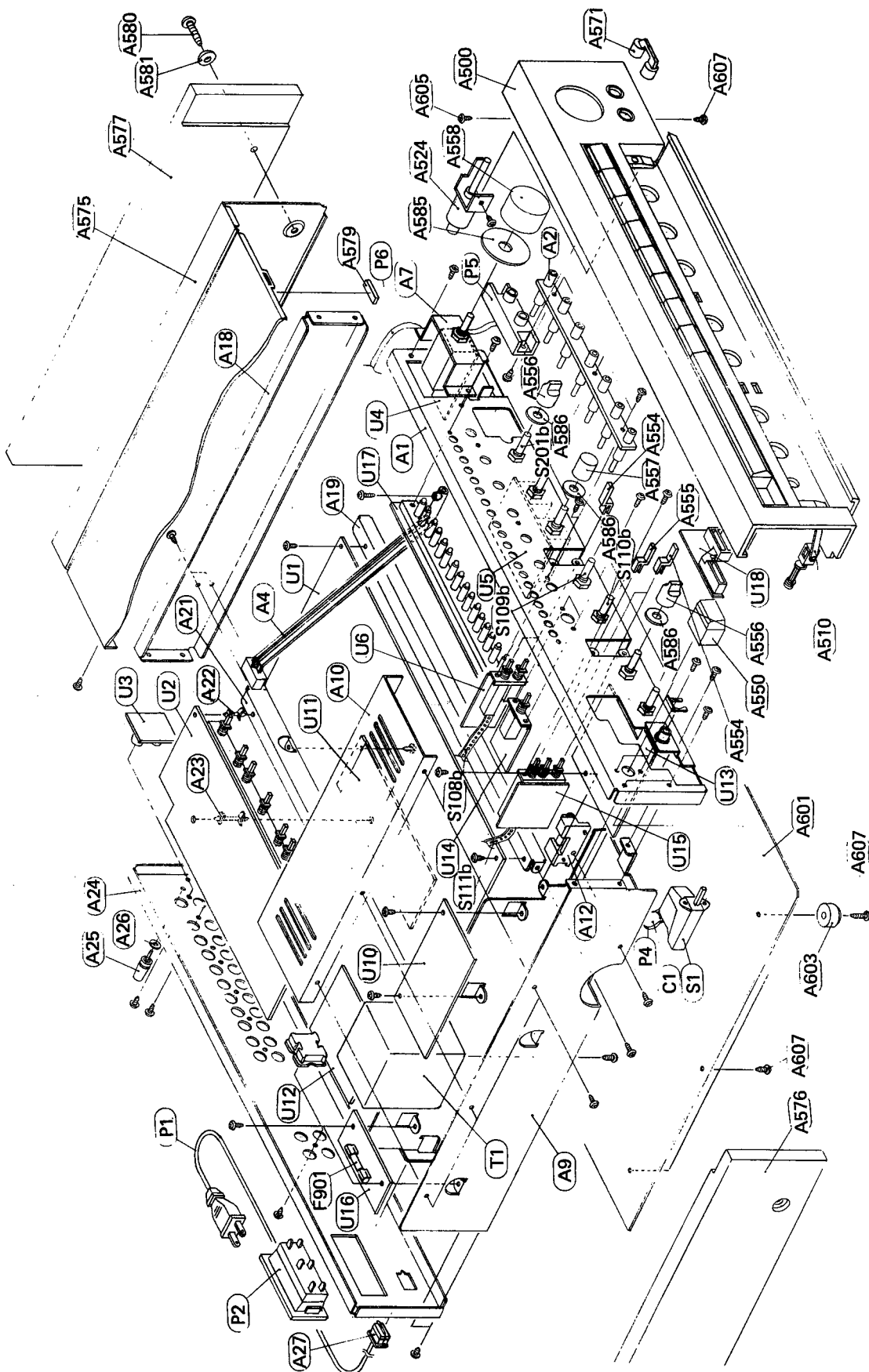
Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by sliding the groove in the switch with a screwdriver or similar instrument to the up or down position. Confirm that the switch has been moved all the way to the up or down 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.



BLOCK DIAGRAM



CHASSIS-EXPLODED VIEW



CHASSIS-EXPLODED VIEW-PARTS LIST

REF. NO.	PARTS NO.	DESCRIPTION	REF. NO.	PARTS NO.	DESCRIPTION	REF. NO.	PARTS NO.	DESCRIPTION
A1	27110283	Front panel ass'y	△ T1	2300104	NPT-919D, Power transformer	U1	17828545-1	NAEF-2645-1, Equalizer amplifier
A2	27267469A	Guide ass'y (Joint)		2300105	NPT-919G, Power transformer [G]	U2	17828546-1	pc board ass'y NASW-2646-1, Input selector switch
A4	27273051A	Joint (M)		2300106	NPT-919DG, Power transformer [W][X]	U3	17828547-1	pc board ass'y NAPJ-2647-1, Phono input terminal
A7	27141062	Bracket (VOL)		2300107	NPT-919Q, Power transformer [Q]	U4	17828548-1	pc board ass'y NAVR-2648-1, Volume controle pc board ass'y
A9	27115201A	Side bracket (L)	△ C1	3500065A	0.01μF, AC400V, Capacitor	U5	17828549-1	NATC-2649-1, Tone control circuit
A10	27150213	Shield plate	△ S1	25035345A	NPS-111-L308P, Power switch	U6	17828550-1	pc board ass'y NASW-2650-1, Bass selector switch
A12	27300817	Damper ass'y		25035398	NPS-111-362P, Power switch [G][W][Q]	U10	17828554-1	NAPS-2654-1, Power supply pc board ass'y
A18	27115203A	Side bracket (R)		25065123	NSS-1258P, Slide switch [W]	U11	17828555-1	NASW-2655-1, REC.Selector switch
A19	27130423	Bracket (FR)		25065292	Remote switch, wire section	U12	17828556-1	NATK-2656-1, Transient killer
A21	27130425	Bracket (RE)		25030279	NRSM-106-15BU, Remote switch	U13	17828557-1	NAPH-2657-1, Phone amplifier
A22	27190480	Holder	△ S2	25030280	NRSM-106-15BU, Remote switch	U14	17828558-1	circuit pc board ass'y NASW-2658-1, Output switch pc board ass'y
A23	27190470	Holder		25065284-1	Remote switch, wire section	U15	17828559-1	NASW-2659-1, Recording output switch pc board ass'y
A24	27120844	Back panel	S108b	25030281A	NRSM-104-15BU, Remote switch	U16	17828560-1	NAFU-2660-1, Fuse pc board ass'y
A26	27120845	Back panel	S109b	253122	AS-UC-6#16, Power supply cable	U17	17828561-1	NADIS-2661-1, Input display pc board ass'y
A27	27120860	Back panel	S110b	253118	AS-CEE, Power supply cable [G][W]	U18	17828562-1	NADIS-2662-1, Display pc board ass'y
A28	27120861	Back panel	S111b	25050293	AS-SAA, Power supply cable [Q]	U19	17824563-1A	NASW-2663-1A, Switch pc board ass'y [G][W][Q]
A29	27120862	Back panel	S201b	25108010	NSCT-6P120, AC outlet [D][X]			
A25	25060041	Ground terminal	△ P1	25108011	LG-2C, Lug terminal [G][W][Q]			
A26	87644010	W4 × 10F(BC), Washer		253129A	AS-UC-6#16, Power supply cable [G][W]			
A27	27300750	Bushing (AC cable)	△ P2	253118	AS-SAA, Power supply cable [Q]			
A500	17828121	Front panel ass'y		25050293	NSCT-6P120, AC outlet [D][X]			
A510	27273055A	Front panel ass'y (Damper)		25108010	LG-2C, Lug terminal [G][W][Q]			
(A511)	27141072	Bracket (Damper)		SB-1925, Cover (Capacitor)				
(A512)	27300825	Joint (Damper)		NPJ-2PBL81, Terminal				
(A513)	27260217A	Damper pin		NSAS-3P-52L, Socket ass'y				
(A514)	8930201S	ES-2S, Circlip		Cap (AC outlet) [X]				
A524	27230019	Push latch ass'y	△ F901	1A ST-6, Primary fuse [D][N][X][W]				
A550	28322522A	Knob ass'y (POW)	△ F902	0.5A-SE-EAWK, Primary fuse [G][Q][X][W]				
A554	28322525	Knob (PUSH)						
A555	28322526	Knob (PUSH)						
A556	28322527	Knob (HANE)						
A557	28322528A	Knob (TONE)						
A558	28322529A	Knob (VOL)						
A571	28330071	Cap						
A575	28184318A	Top cover						
A576	28185255	Side board (L)						
A577	28185256	Side board (R)						
A579	28140020	4 × 10 × 40mm, Cushion						
A580	836440303	4STV + 30CQ(BC), Screw						
A581	870086	4 × 12BC(BC), Special washer						
A585	28140126	φ53, Cushion						
A586	28140219	φ20, Cushion						
A601	27170227	Bottom board						
A603	2715009A	Bottom leg						
A605	838430068	3TTB+6B(BC), Tapping screw						
A607	831430088	3TTW + 8B(BC), Tapping screw						

NOTE

- [D]: Only 120V models
- [G]: Only 220V models
- [W]: Only 120V/220V models
- [N]: Only U.S.A. models
- [X]: Only Military market models
- [Q]: Only British and Australian models

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

PRINTED CIRCUIT BOARD PARTS LIST

EQUALIZER AMPLIFIER PC BOARD (NAEF-2645-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors				
Q201~Q204	2211535 or 2211536	2SK146(GR) or 2SK146(BL)	C211,C212 C213~ C216 C217,C218 C219,C220 C221,C222	372122214 379121535 379125625 372122214 379127524	220pF, 50V, Styrene 0.015 μ F, 50V, Film (DEW) 5600pF, 50V, Film (DEW) 220pF, 50V, Styrene 7500pF, 50V, Film (DEW)
Q205~Q208	2211895 or 2211896	2SC1815L(GR) or 2SC1815L(BL)	C223~ C226 C227,C228 C229,C230 C231,C232 C237,C238 C239,C240	379121034 379124334 379123634 372126804 391232219 379122725	0.01 μ F, 50V, Film (DEW) 0.043 μ F, 50V, Film (DEW) 0.036 μ F, 50V, Film (DEW) 68pF, 50V, Styrene 220 μ F, 10V, Elect. (MUSE) 2700pF, 50V, Elect. (DEW)
Q209,Q210 Q211,Q212	2211414 2211515 or 2211516	2SC1627(Y) 2SA995(F) or 2SA995(G)	C241~ C244 C245,C246 C301,C302 C303~ C306 C307,C308 C501,C502 C503,C504 C505,C506 C507,C508 C515,C516	379124334 379123634 372126804 391232219 379122725 354751019 354784709 354741009 391252219 372123304 372121014 372122214 354784799 372122704 391232219	0.043 μ F, 50V, Film (DEW) 0.036 μ F, 50V, Film (DEW) 68pF, 50V, Styrene 220 μ F, 10V, Elect. (MUSE) 2700pF, 50V, Elect. (DEW) 100 μ F, 25V, Elect. 47 μ F, 50V, Elect. 10 μ F, 16V, Elect. 220 μ F, 25V, Elect. (MUSE) 33pF, 50V, Styrene 100pF, 50V, Styrene 220pF, 50V, Styrene 0.47 μ F, 50V, Elect. 27pF, 50V, Styrene 220 μ F, 10V, Elect. (MUSE)
Q213~Q218 Q219,Q220	2211975 2211895 or 2211896	2SA1015L(GR) 2SC1815L(GR) or 2SC1815L(BL)	C517~ C520 C521,C522 C551~ C554 C555,C556 C931,C932 C935,C936 C937,C938 C951,C952 C955,C956 C957,C958	354751019 354784709 354752209 372123304 354782219 354721019 354753319 354762219 354721019 354743319	100 μ F, 25V, Elect. 47 μ F, 50V, Elect. 22 μ F, 25V, Elect. 33pF, 50V, Styrene 220 μ F, 50V, Elect. 100 μ F, 6.3V, Elect. 330 μ F, 25V, Elect. 220 μ F, 35V, Elect. 100 μ F, 6.3V, Elect. 330 μ F, 16V, Elect.
Q221,Q222 Q223,Q224 Q225,Q226 Q227,Q228 Q501,Q502	2211414 2211424 2211414 2211424 2212805 or 2212806	2SA817(Y) 2SC1627(Y) 2SA817(Y) 2SK389(GR) or 2SK389(BL)	R225~ R228 R239,R240 R265,R266 R267~ R274 R275,R276 R529~ R536 R539~ R542	372121014 372122214 354784799 372122704 391232219 354751019 354784709 354752209 372123304 354782219 354721019 354753319 354762219 354721019 354743319	100 μ F, 25V, Elect. 47 μ F, 50V, Elect. 10 μ F, 16V, Elect. 220 μ F, 25V, Elect. (MUSE) 33pF, 50V, Styrene 220 μ F, 50V, Elect. 100 μ F, 6.3V, Elect. 330 μ F, 25V, Elect. 220 μ F, 35V, Elect. 100 μ F, 6.3V, Elect. 330 μ F, 16V, Elect.
Q503~Q508 Q509,Q510	2211255 2211515 or 2211516	2SC1815(GR) 2SA995(F) or 2SA995(G)	S201a	25065283	Resistors 68 Ω , 1/2W, Metal oxide film 82 Ω , 1/2W, Metal oxide film 430 Ω , 1/2W, Metal oxide film 33 Ω , 1/2W, Metal oxide film 560 Ω , 1W, Metal oxide film 24 Ω , 1/2W, Metal oxide film 200 Ω , 1W, Metal oxide film
Q511~Q514 Q515,Q516 Q517,Q518 Q519,Q520 Q521,Q522 Q523,Q524 Q931	2211455 2211255 2211164 2211504 2211164 2211504 2201404 or 2201403	2SA1015(GR) 2SC1815(GR) 2SC2120(Y) 2SA950(Y) 2SC2120(Y) 2SA950(Y) 2SD1406(Y) or 2SD1406(O)	JC101 P203 P501 P502,P503	25050272 2000556 2000557 2000558	Sockets NSCT-8P100 NSAS-6P512, Socket ass'y NSAS-6P513 Socket ass'y NSAS-6P514 Socket ass'y
Q932	2201394 or 2201393	2SB1015(Y) or 2SB1015(O)	P201a,P202a P504a ~ P508a	25055132 25055133	Plugs NPLG-2P116 NPLG-3P117
Q933	2211254 or 2211255	2SC1815(Y) or 2SC1815(GR)	P931,P932 P951,P952	27160176 27160145	Radiator RAD-56 RAD-51
Q934	2211454 or 2211455	2SA1015(Y) or 2SA1015(GR)	Plate	25060032B	Bus
Q935	2211254 or 2211255	2SC1815(Y) or 2SC1815(GR)	Shield case	27225075	
Q936	2211454 or 2211455	2SA1015(Y) or 2SA1015(GR)			
Q951	2201404 or 2201403	2SD1406(Y) or 2SD1406(O)			
Q952	2201394 or 2201393	2SB1015(Y) or 2SB1015(O)			
Q953	2211254 or 2211255	2SC1815(Y) or 2SC1815(GR)			
Q954	2211454 or 2211455	2SA1015(Y) or 2SA1015(GR)			
Q955	2211254 or 2211255	2SC1815(Y) or 2SC1815(GR)			
Q956	2211454 or 2211455	2SA1015(Y) or 2SA1015(GR)			
	ICs				
Q301,Q302 Q551,Q552	222585 222465	NJM4558DXB NJM4558D			
	Diodes				
D201~ D204 D205~ D210 D501~ D504 D505~ D510 D931,D932,D951 D952	223145 225218 223145 225218 2239511 or 2243171	1S2076TD LTZ-MR15 1S2076TD LTZ-MR15 RD6.8E-B1 or MTZ6.8-A			
	Capacitors				
C209,C210	372121814	180pF, 50V, Styrene			

**INPUT SELECTOR SWITCH PC BOARD
(NASW-2646-1)**

CIRCUIT NO.	PARTS NO.	DESCRIPTION
L101 ~ L104	Coils 231069	NCH-1119
	Switches 25035524 25065190	NPS-742-L486 NSS-4285, Remote switch
P102 P103 ~ P105 P106, P107 P108, P109 P110, P111	Terminals 25045190	NPJ-2PDBL74
	25045199	NPJ-6PDBL80
	25045201	NPJ-4PDBL82
	25045202	NPJ-4PDBL83
	25045202	NPJ-4PDBL83
JC151, JC154 (P203, P501)	Sockets 25050273 2000556	NSCT-9P101 NSAS-6P512, Socket ass'y
	Plug 25055133	NPLG-3P117

**PHONO INPUT TERMINAL PC BOARD
(NAPJ-2647-1)**

CIRCUIT NO.	PARTS NO.	DESCRIPTION
P101	25045197	NPJ-2PDBL78, Terminal
P201	2000554	NSAS-4P510, Socket ass'y
P202	2000555	NSAS-4P511, Socket ass'y

VOLUME CONTROLE PC BOARD (NAVR-2648-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
R403	5104185	N27DGL25KT20M, Variable resistor
(P502, P503)	2000558	NSAS-6P514, Socket ass'y

**TONE CONTROL CIRCUIT PC BOARD
(NATC-2649-1)**

CIRCUIT NO.	PARTS NO.	DESCRIPTION
C401, C402 C403, C404 C405, C406 C407, C408 C409, C410	Capacitors 379121834	0.018 μ F, 50V, Film (DEW)
	379123924	3900pF, 50V, Film (DEW)
	379123334	0.033 μ F, 50V, Film (DEW)
	379121644	0.16 μ F, 50V, Film (DEW)
	379121844	0.18 μ F, 50V, Film (DEW)
R415 R417	Resistors 5104186 5104187	N27DQL11C55K15M, Variable N27DQL11C35K44K15M, Variable

**BASS SELECTOR SWITCH PC BOARD
(NASW-2650-1)**

CIRCUIT NO.	PARTS NO.	DESCRIPTION
S401	25035525	NPS-100-122-L487, Bass shift switch

CIRCUIT NO.	PARTS NO.	DESCRIPTION
(S108c)	25035525	NPS-100-122-L487, Remote switch, Operation section

POWER SUPPLY PC BOARD (NAPS-2654-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D901, D902 D903, D904 D905 ~ D910	Diodes 223867 223890 223896	WL02 W01RL 1N4003F
	Capacitors 375104745 375101045 354782229 354762229 354741029 354753319 379121035	0.47 μ F, 125V, Film (ME) 0.1 μ F, 125V, Film (ME) 2200 μ F, 50V, Elect. 2200 μ F, 35V, Elect. 1000 μ F, 16V, Elect. 330 μ F, 25V, Elect. 0.01 μ F, 50V, Film (DEW)
	Resistors 442523304 442520104 442520204 442526214	33 Ω , 1/2W, Metal oxide film 1 Ω , 1/2W, Metal oxide film 2 Ω , 1/2W, Metal oxide film 620 Ω , 1/2W, Metal oxide film
JC951	Socket 25050267	NSCT-3P95

**REC. SELECTOR SWITCH PC BOARD
(NASW-2655-1)**

CIRCUIT NO.	PARTS NO.	DESCRIPTION
L105, L106	Coils 231069	NCH-1119
	Switches 25065079 25065190	NSS-4643, Remote switch NSS-4285, Remote switch
P155	Socket 25050267	NSCT-3P95

**TRANSIENT KILLER CIRCUIT PC BOARD
(NATK-2656-1)**

CIRCUIT NO.	PARTS NO.	DESCRIPTION
Q801 Q802 Q803	Transistors 2211255 2211455 2211164	2SC1815(GR) 2SA1015(GR) 2SC2120(Y)
	Diodes 223145 2239492 or 2243162 223145	1S2076TD RD6.2E-B2 or MTZ6.2-B 1S2076TD
	L601 ~ L604	Coils 231069
C801	Capacitors 354744709	47 μ F, 16V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
C802	354751009	10 μ F, 25V, Elect.
	Resistors	
R801	442521324	1.3k Ω , 1/2W, Metal oxide film
R807	442526214	620 Ω , 1/2W, Metal oxide film
	Sockets	
JC801	25050270	NSCT-6P98
P506,P507	2000562	NSAS-6P518, Socket ass'y
	Relaies	
RL801,RL802	25065282	NRL-2P1.25A-DC12-39
	Terminal	
P601,P602	25045201	NPJ-4PDBL82

HEADPHONE AMPLIFIER CIRCUIT PC BOARD (NAPH-2657-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	ICs	
Q701	222957	M-5216L
	Diodes	
D701~D704	223145	1S2076TD
	Capacitors	
C701,C702	354760479	4.7 μ F, 35V, Elect.
C703,C704	372122214	220 pF, 50V, Styren
C705,C706	354744709	47 μ F, 16V, Elect.
C707,C708	379121035	0.01 μ F, 50V, Film (DEW)
C709,C710	354741009	10 μ , 16V, Elect.
C711	354760479	4.7 μ F, 35V, Elect.
	Resistors	
R711,R712	441624704	47 Ω , 1W, Metal oxide film
	Switches	
S603,S604	25030278	NRSM-116-15SBU
	Stereo jack	
P701	25045203	HLJ-4318-01-3010
	Sockets	
JC751	25050272	NSCT-8P101
P504,P505	2000560	NSAS-6P516, Socket ass'y
P508	2000564	NSAS-6P520, Socket ass'y

OUTPUT SWITCH PC BOARD (NASW-2658-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
S801	25035372	NPS-122-L336, Output ON/OFF switch

RECORDING OUTPUT SWITCH PC BOARD (NASW-2659-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Diodes	
D855	225137CG or 225137DG or 225137DY	SEL2413CG or SEL2413DG or SEL2413DY
	Resistors	
R851~R853	442521324	1.3k Ω , 1/2W, Metal oxide film
	Switches	
S601,S602,(S111C)	25035526	NPS-222-122-L488

FUSE PC BOARD (NAFU-2660-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
F901a	250113	S-N5051, Fuse holder

FUSE PC BOARD (NAFU-2660-1A)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
F902a	25050065	YSH-403T Fuse holder

FUSE PC BOARD (NAFU-2660-1B)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
F901a	250113	S-N5051, Fuse holder
F902a	25050065	YSH-403T Fuse holder

INPUT DISPLAY PC BOARD (NADIS-2661-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Diodes	
D857~D872	225137CG or 225137DG or 225137DY	SEL2413CG or SEL2413DG or SEL2413DY
	Resistor	
R854	442521324	1.3k Ω , 1/2W, Metal oxide film
	Holder	
	27190456	Holder (LED)

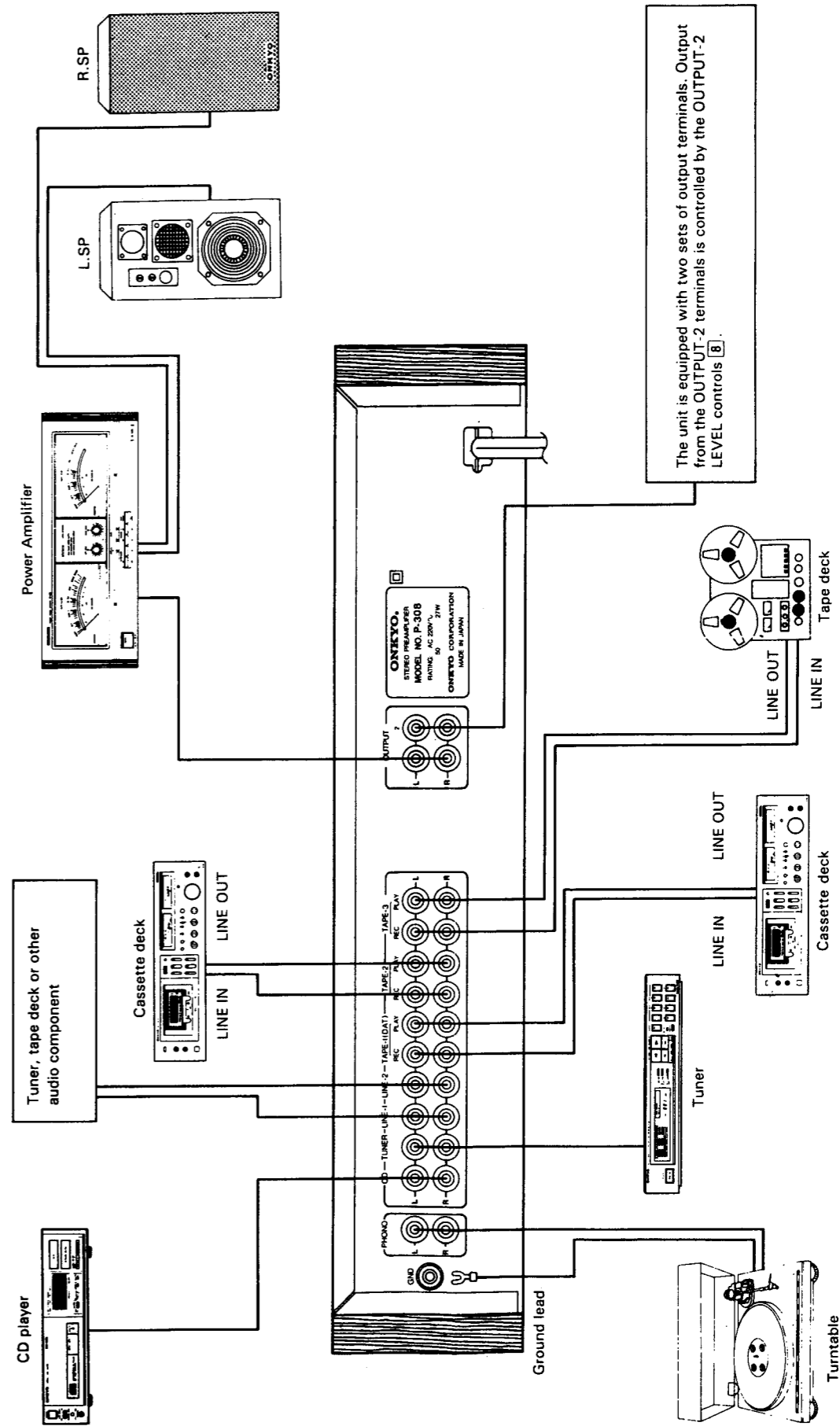
DISPLAY PC BOARD (NADIS-2662-1)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Diodes	
D851,D852	225142	SEL2413K
D853,D854	225142CG or 225142DG or 225142DY	SEL2913CG or SEL2913DG or SEL2913DY
D856	225142	SEL2413K
	Holder	
	27190455	Holder (LED)

SWITCH PC BOARD (NASW-2663-1A)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
C981	3500065A	0.01 μ F, AC400V, Capacitor (IS)
P901	27300601	SB-1925, Cover (capacitor)
S901	25035398	NPS-111-362P, Power switch

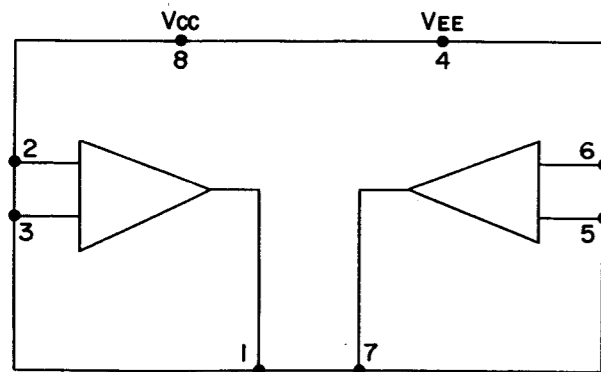
SYSTEM CONNECTIONS



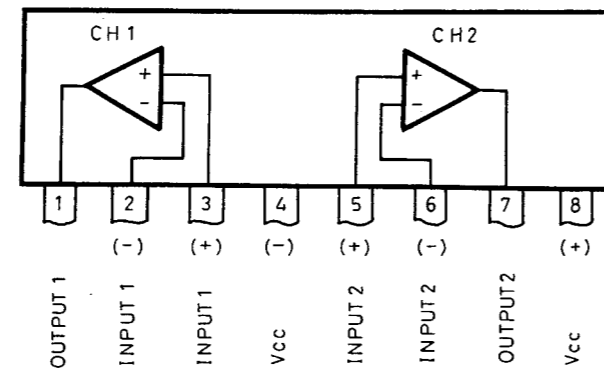
- DO NOT PLUG IN THE POWER CORD UNTILL ALL CONNECTIONS HAVE BEEN COMPLETED AND THOROUGHLY CHECKED.

IC BLOCK DIAGRAM

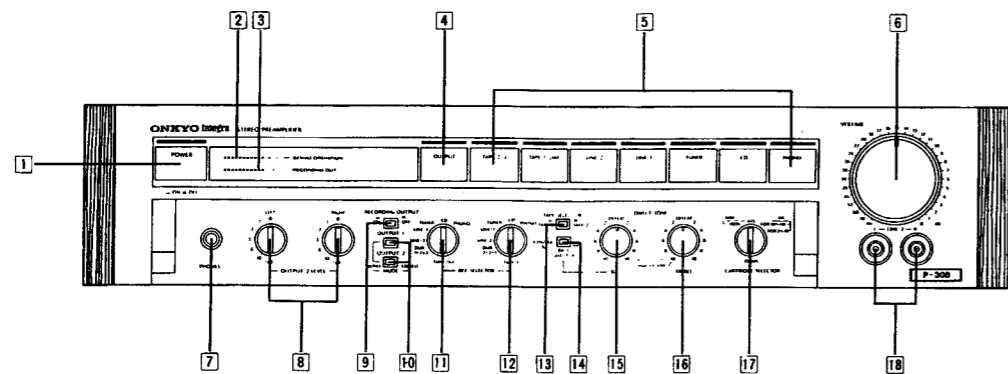
NJM4558D



M-5216L

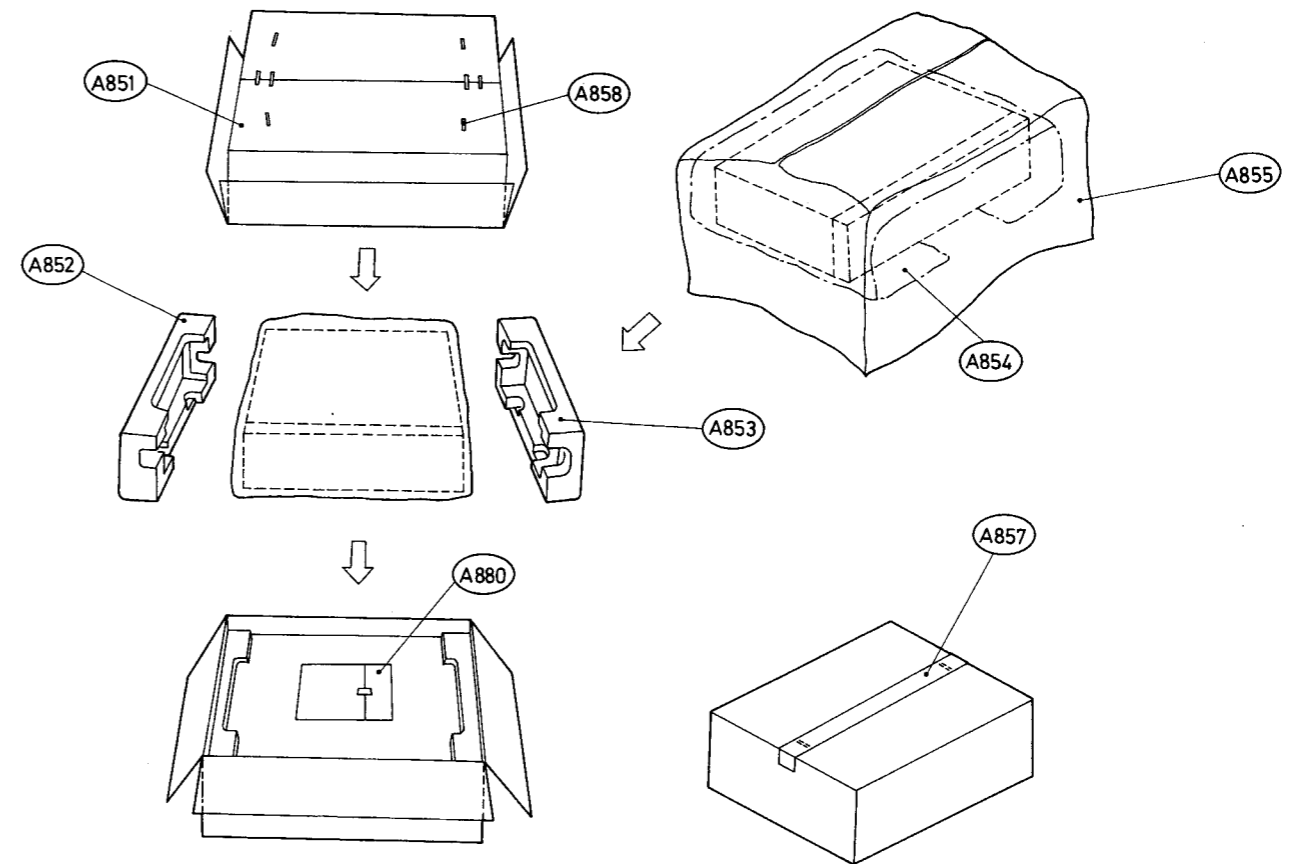


FRONT PANEL FACILITIES



1. Power Switch (POWER)
2. Servo Operation Indicator (SERVO OPERATION)
3. Recording Indicator (RECORDING OUT)
4. Output Switch and Indicator (OUTPUT)
5. Input Selector Switches and Indicators
6. Volume Control (VOLUME)
7. Headphone Jack (PHONES)
8. Output-2 Level Controls (OUTPUT-2 LEVEL)
9. Recording Output Switch (RECORDING OUTPUT)
10. Mode Switches (MODE)
- 11,12. Recording Source Selectors (REC. SELECTOR)
13. Tape Selector (TAPE SELECTOR)
14. Bass Selector Switch (BASS SELECTOR)
15. Bass Control (BASS)
16. Treble Control (TREBLE)
17. Cartridge Selector Switch (CARTRIDGE SELECTOR)
18. Line-2 Input Terminal (LINE-2)

PACKING PROCEDURES



REF. NO.	PARTS NO.	DESCRIPTION	
A851	29051309A	Master carton box	
A852	29091079	Pad (L)	
A853	29091080	Pad (R)	
A854	29095318	Protection sheet	
A855	29100038A	720 x 950mm, Poly-vinyl bag	
A857	260012	Dampen tape	
A858	282301	Sealing hook	
A880	Accessory bag ass'y		
	29341006	Instruction manual	[D][N][X]
	29341007	Instruction manual	[G][W][Q]
	29365006-7	Warranty card	[N]
	29365012A	Warranty card	[X]
	29368002C	Service station list	[N]
	29358002C	Service station list	[X]
	2910006A	250 x 350mm, Poly-vinyl bag for accessory	
	25055018	CV-K-1, Conversion plug	[W]
	25055251	CV-CP, Conversion plug	[X]
	28330072	Cap (AC outlet)	[X]

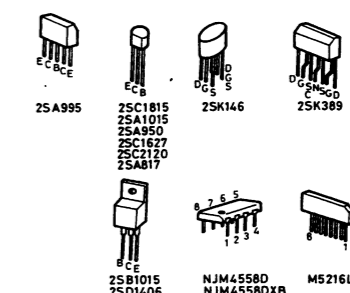
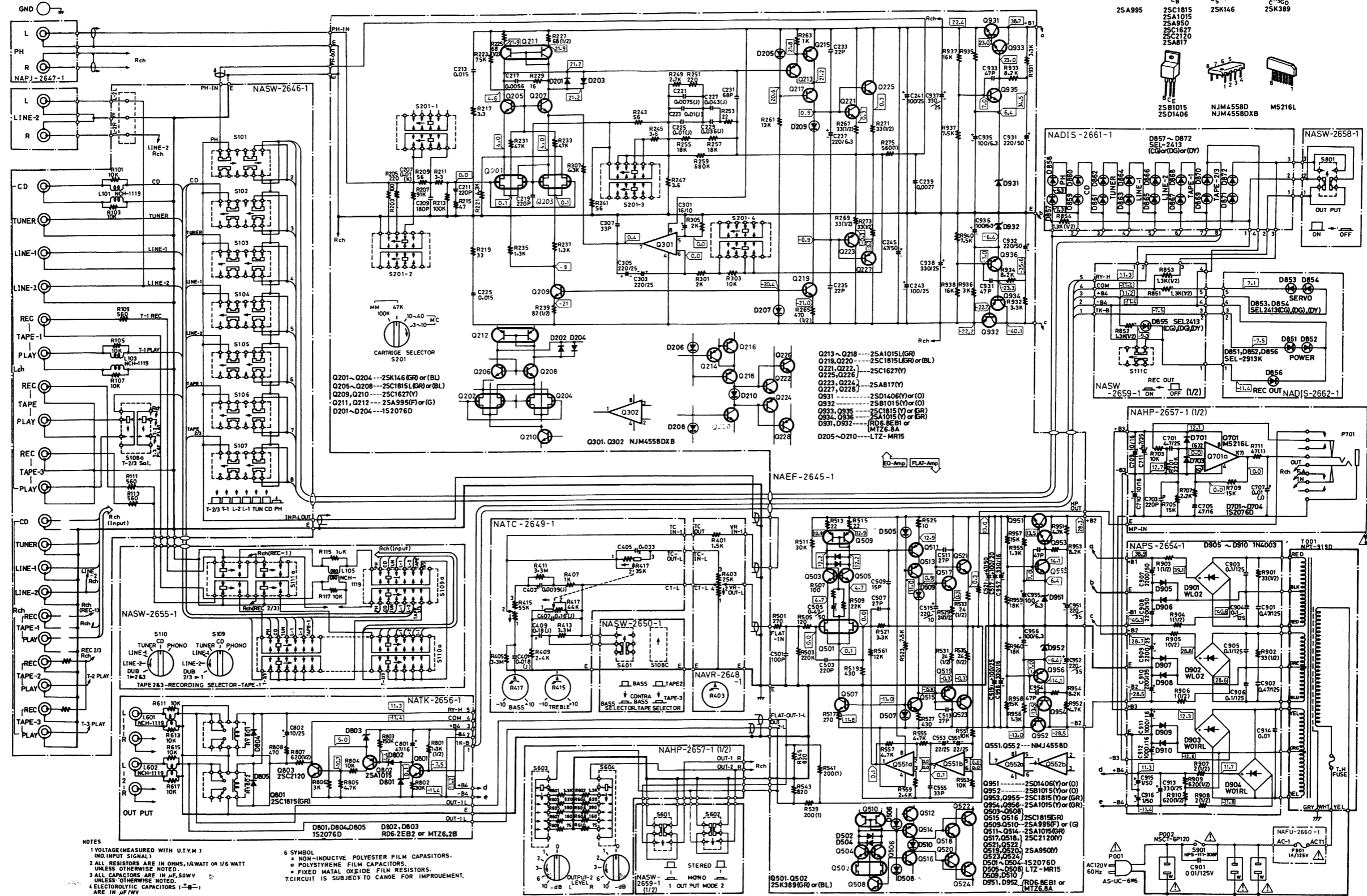
NOTE

- [D]: Only 120V models
- [G]: Only 220V models
- [W]: Only 120V/220V models
- [N]: Only U.S.A. models
- [X]: Only Military market models
- [Q]: Only British and Australian models

SCHEMATIC DIAGRAM (120V Model)

SCHEMATIC DIAGRAM

A
B
C
D
E



NOTES
 1. VOLTAGE (MEASURED WITH D.I.V.M.)
 (NO. INPUT SIGNAL)
 2. ALL RESISTORS ARE IN OHMS, 1/4 WATT OR 1/2 WATT
 UNLESS OTHERWISE NOTED.
 3. ALL CAPACITORS ARE IN μ F, 50V V
 UNLESS OTHERWISE NOTED.
 4. ELECTROLYTIC CAPACITORS (—) ARE IN μ F/VV
 5. TOLERANCE

G	J	K	M	P	H
±2%	±5%	±10%	±20%	+100% -0%	±3%

6. SYMBOL
 * NON-INDUCTIVE POLYESTER FILM CAPACITORS.
 * POLYSTYRENE FILM CAPACITORS.
 * FIXED METAL OXIDE FILM RESISTORS.
 7. CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

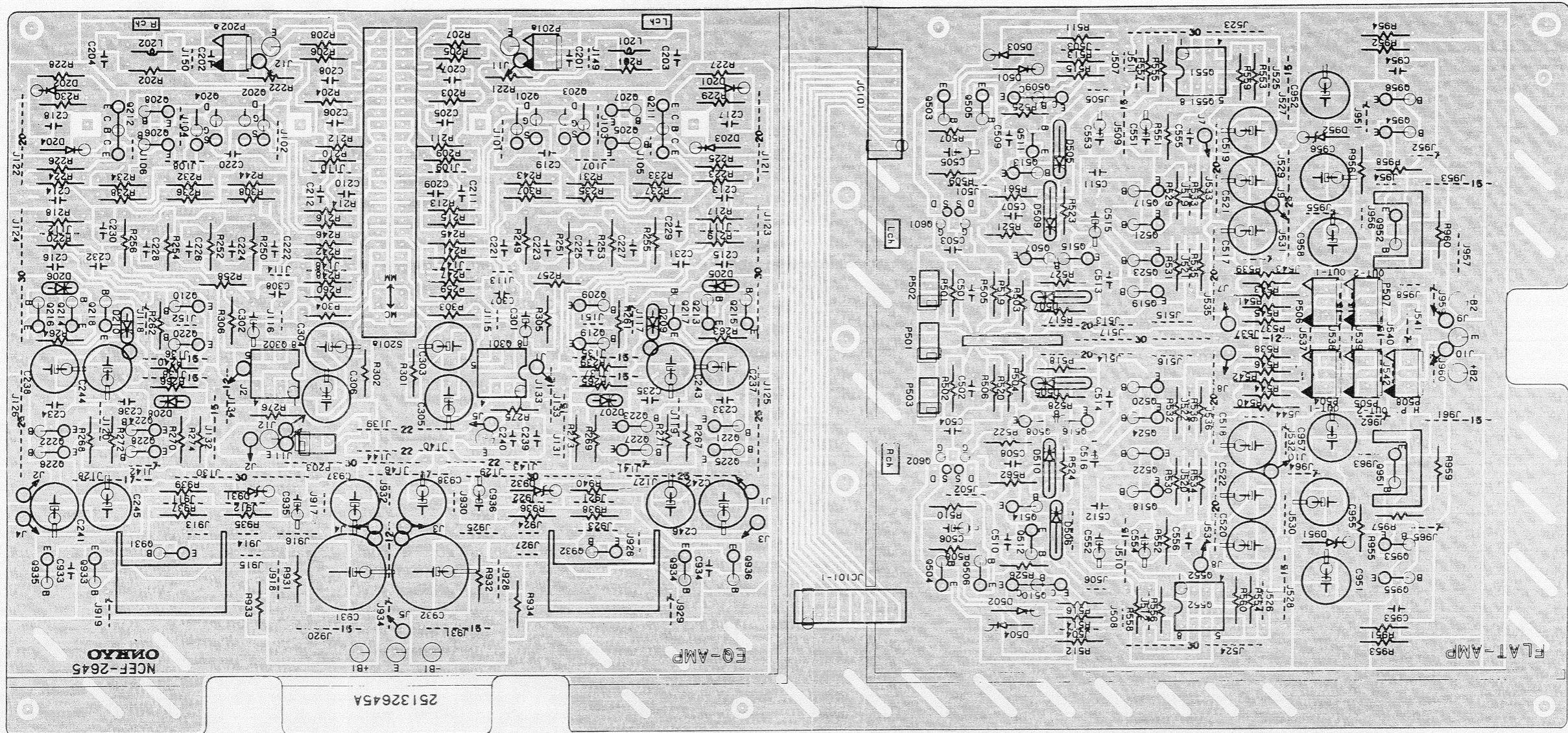
P-308 UD

ONKYO CORPORATION

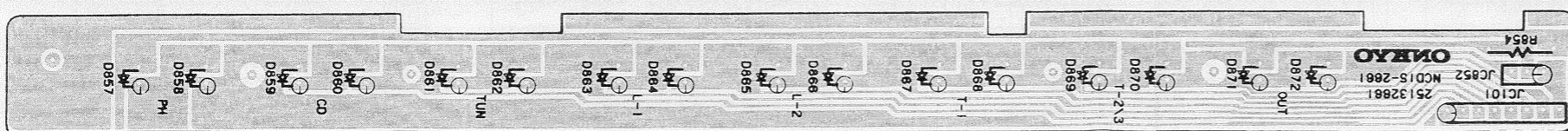
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PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE

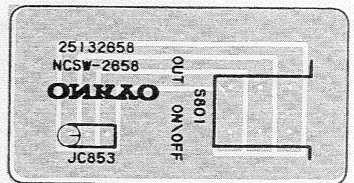
NAEF-2645



NADIS-2661

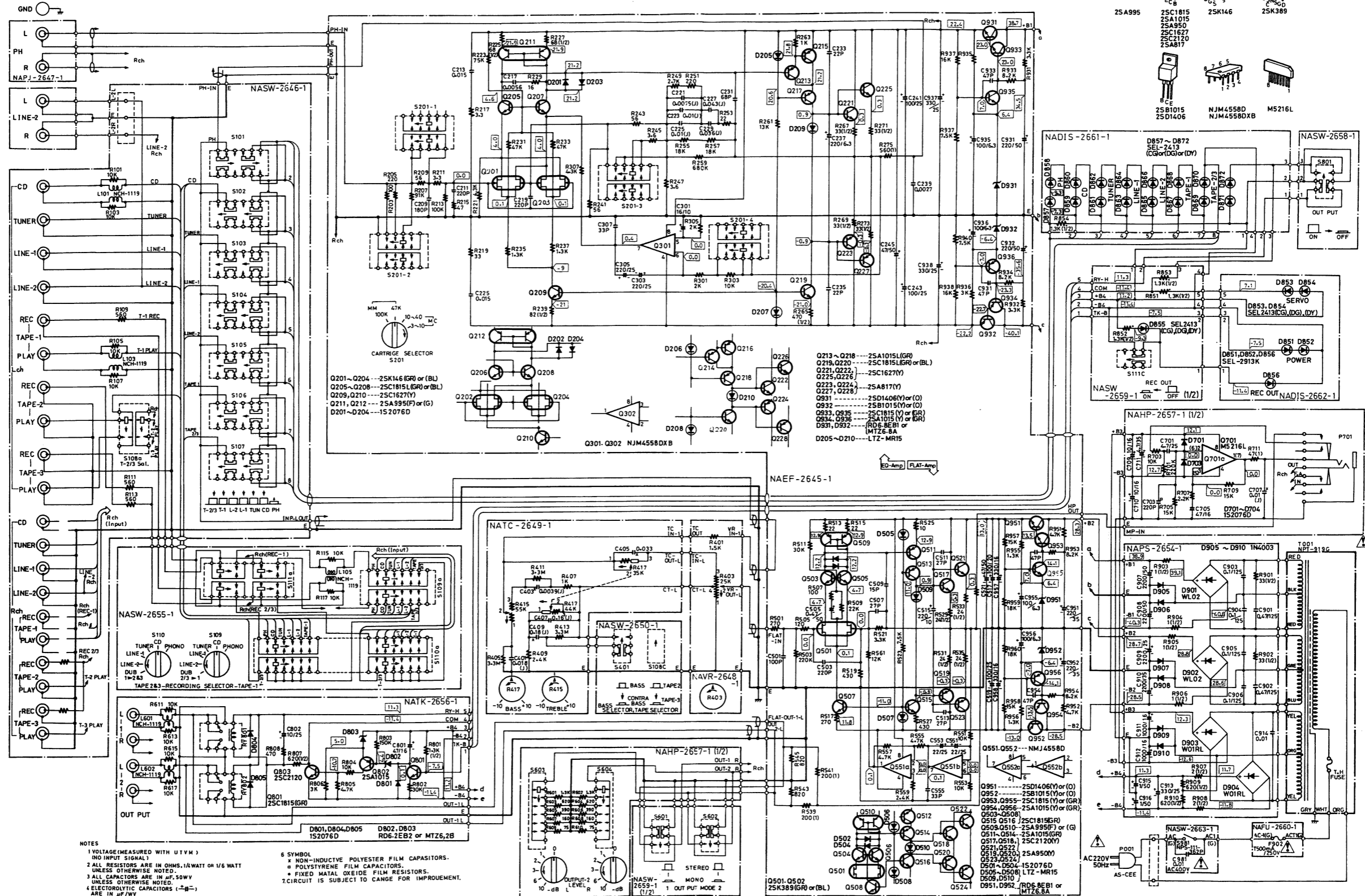
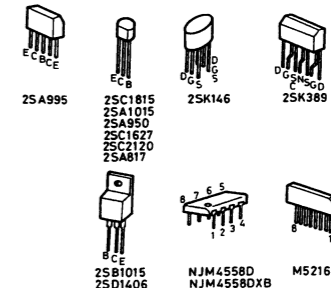


NASW-2658



SCHEMATIC DIAGRAM (220V Model)

SCHEMATIC DIAGRAM

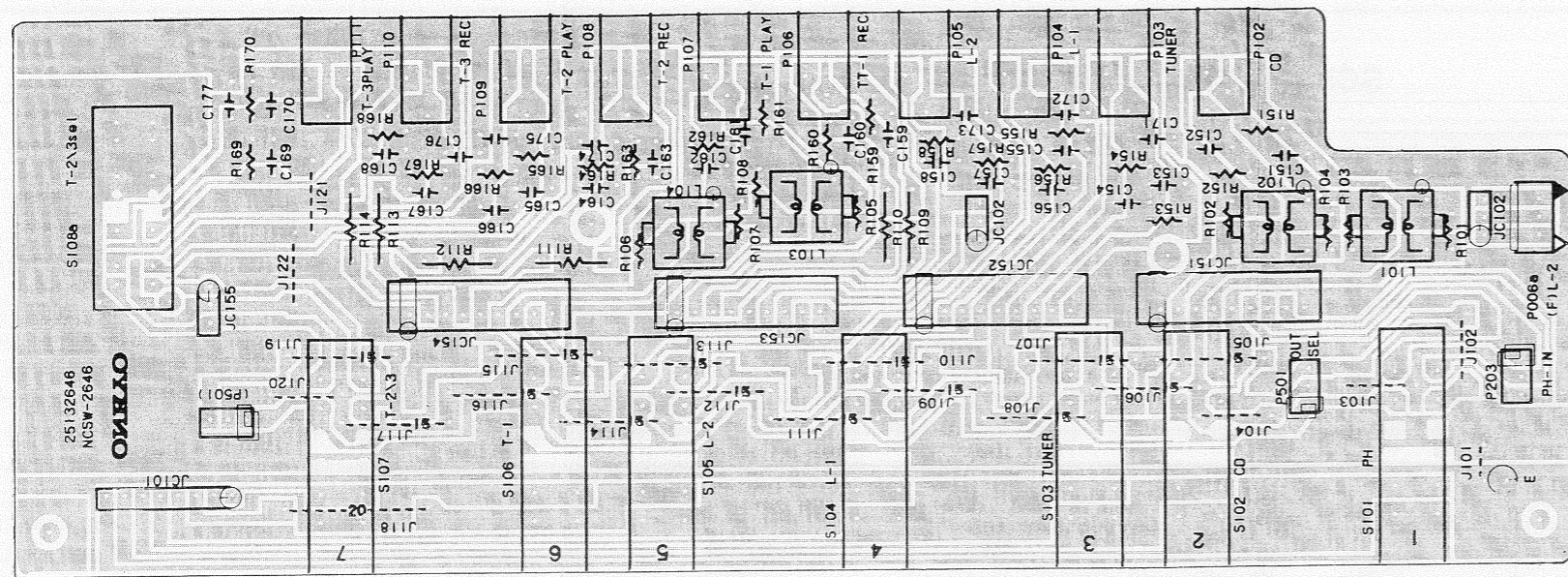


NOTES
 1 VOLTAGE MEASURED WITH UTVM
 (NO INPUT SIGNAL)
 2 ALL RESISTORS ARE IN OHMS, 1/4 WATT OR 1/2 WATT
 UNLESS OTHERWISE NOTED.
 3 ALL CAPACITORS ARE IN μ F, 50 WV
 UNLESS OTHERWISE NOTED.
 4 ELECTROLYTIC CAPACITORS (-E)
 ARE IN μ F/WV
 5 TOLERANCE

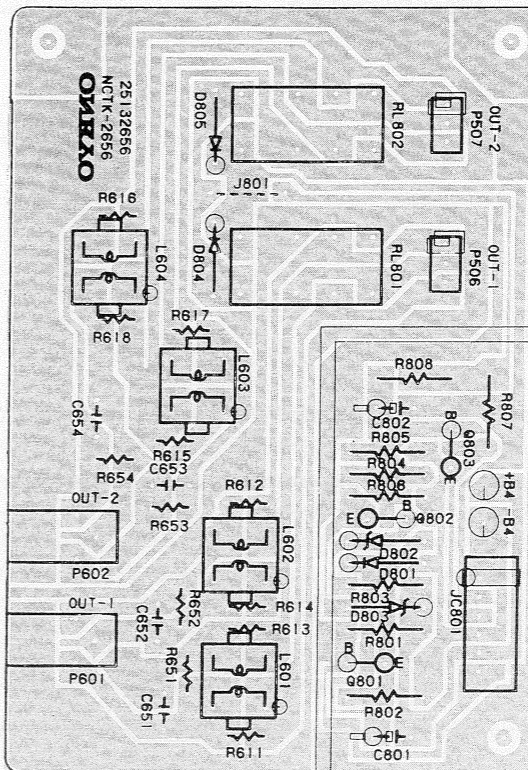
6 SYMBOL
 * NON-INDUCTIVE POLYESTER FILM CAPACITORS.
 o POLYSTYRENE FILM CAPACITORS.
 o FIXED METAL OXIDE FILM RESISTORS.
 T.CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

G	J	K	M	P	H
$\pm 2\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$	$+100\%$ -0%	$\pm 3\%$

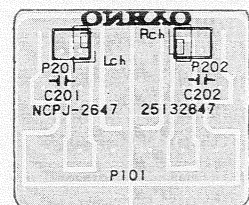
NASW-2646



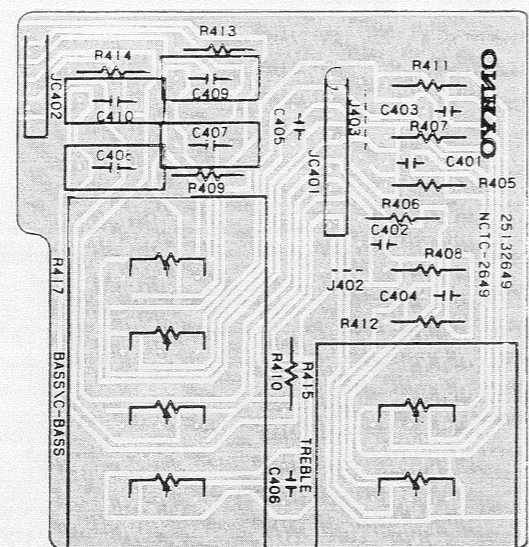
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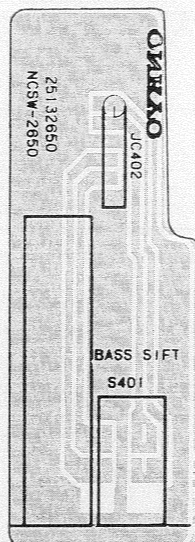
NAPJ-2647



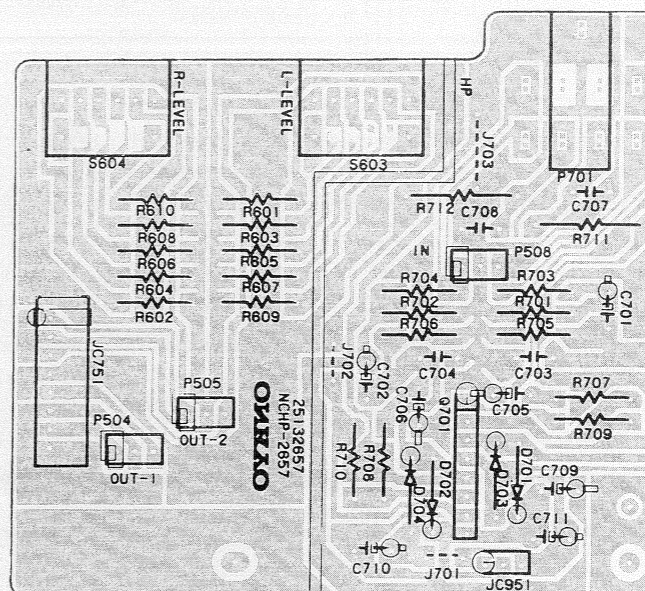
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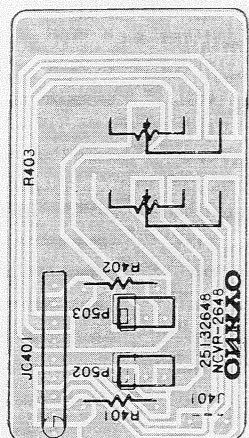
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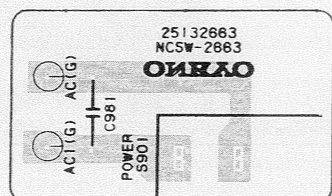
NAHP-2657



NAVR-2648



NASW-2663



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SCHEMATIC DIAGRAM (120V/220V Model)

SCHEMATIC DIAGRAM

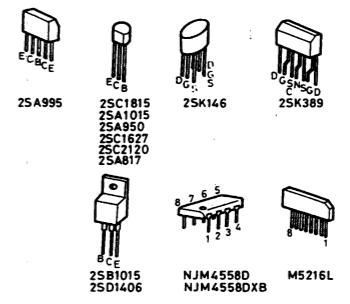
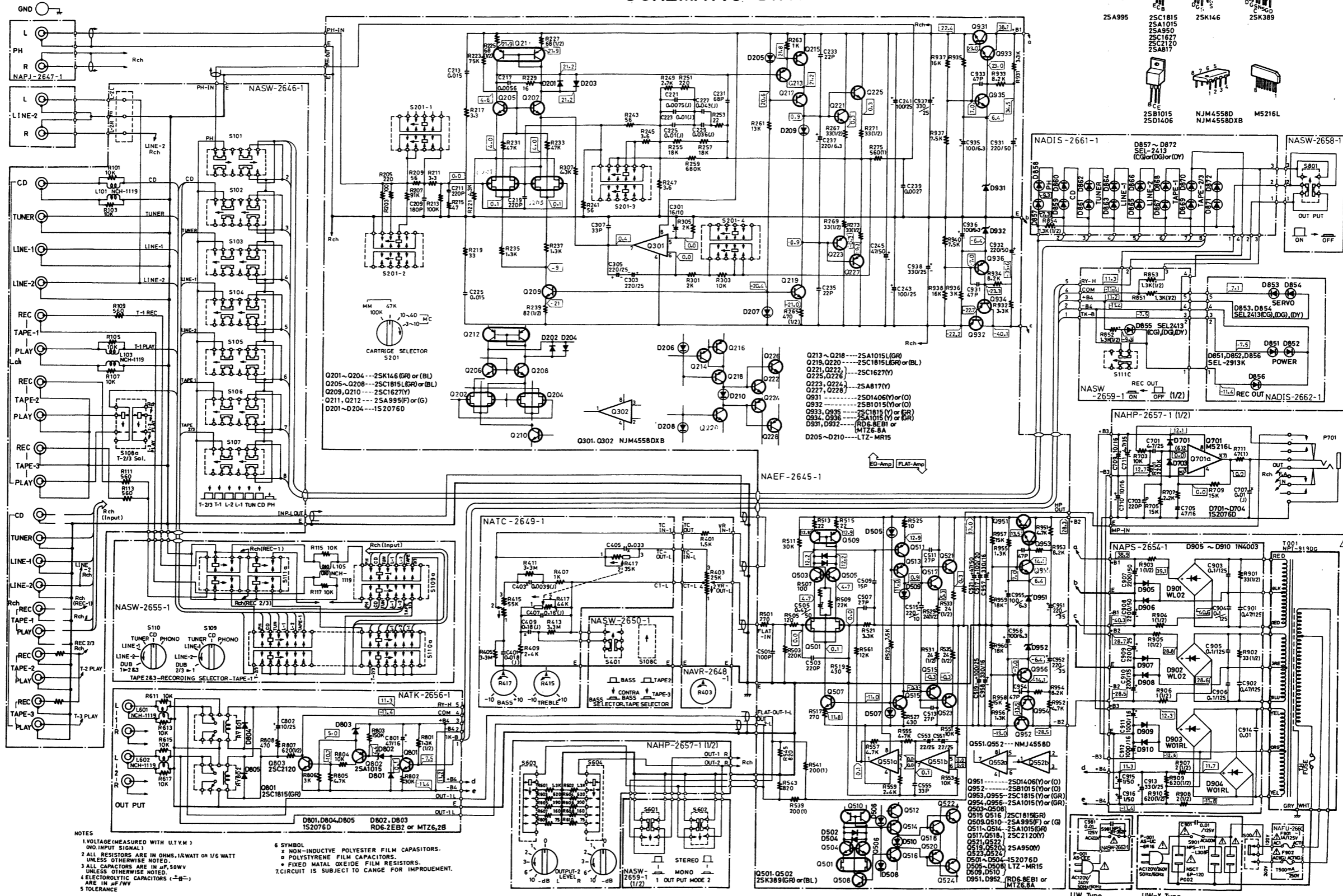
A

B

C

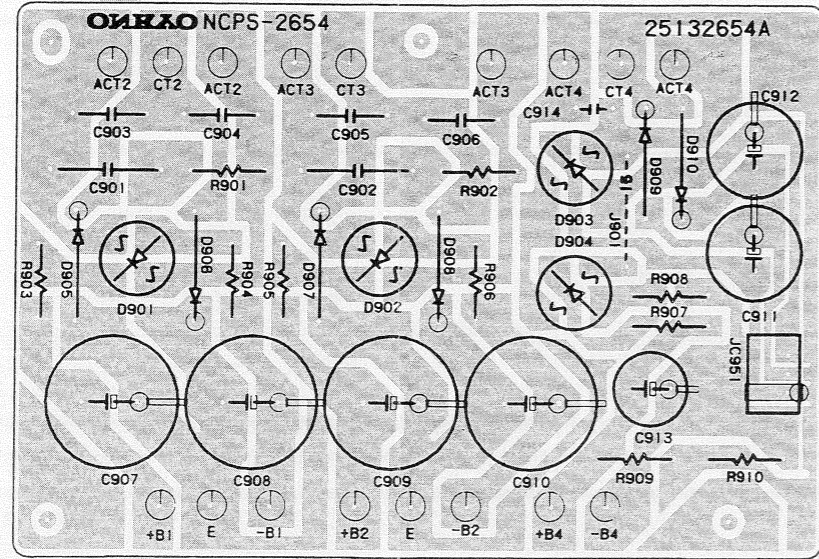
D

E

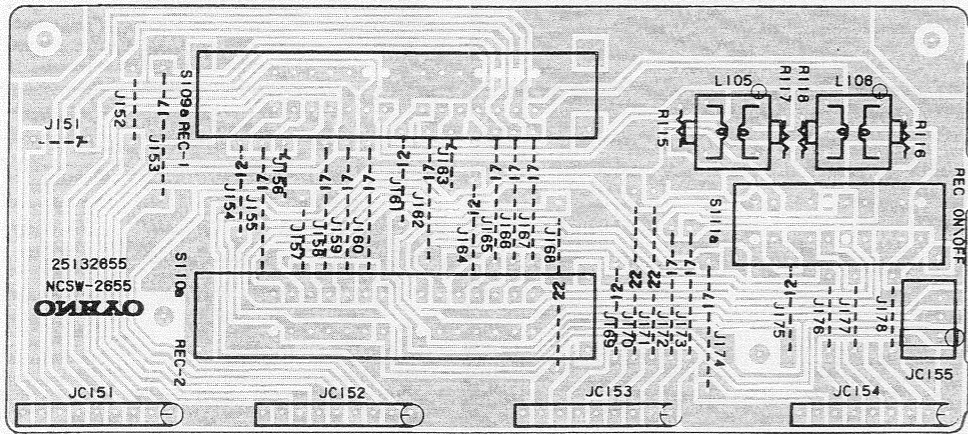


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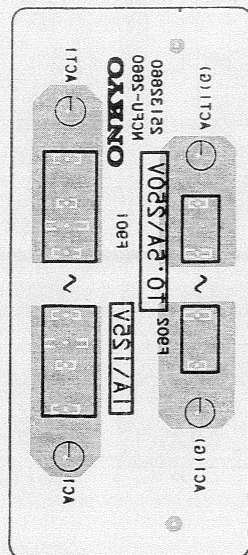
NAPS-2654



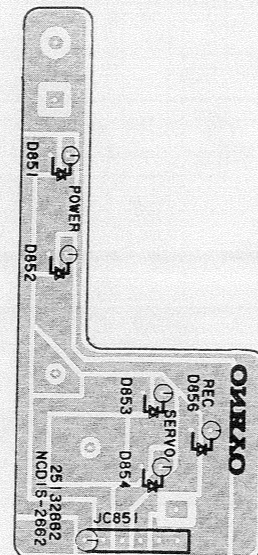
NASW-2655



NAFU-2660



NADIS-2662



NASW-2659

