

NAD SERVICE MANUAL

MC-Service

3225PE
3020i
INTEGRATED AMPLIFIERS

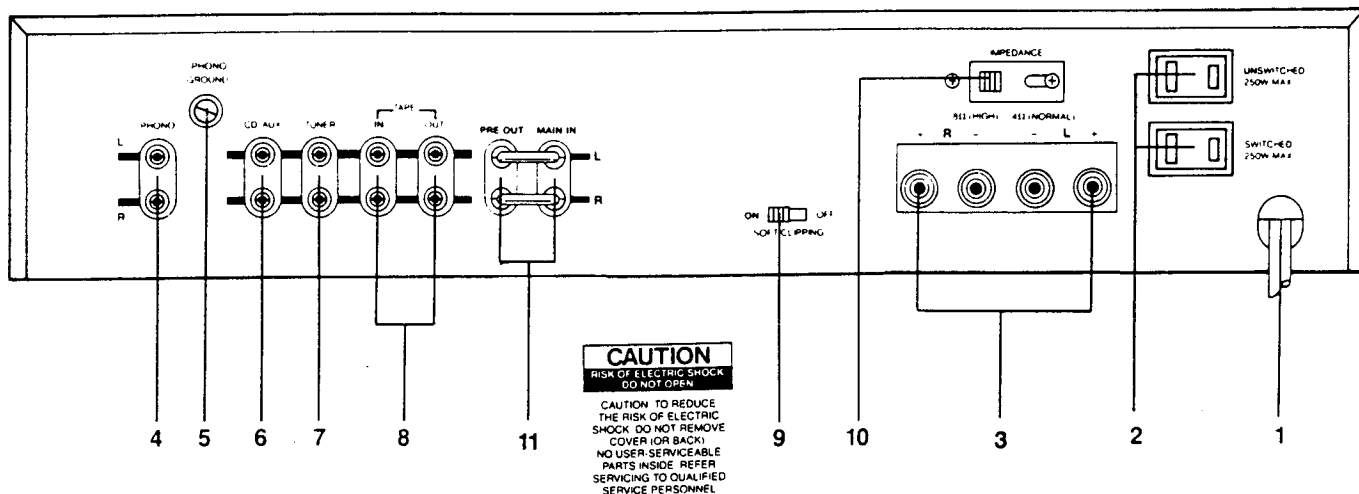
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3225PE/3020i

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REAR PANEL

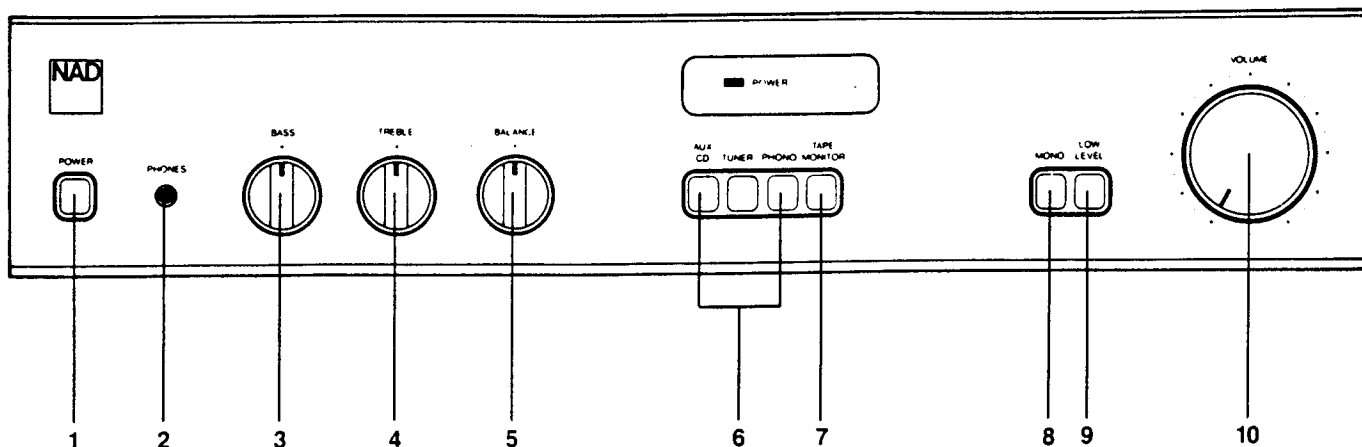
1. AC Line Cord.
2. AC Outlets (not in U.K. version).
3. Speakers.
4. Phono Input.
5. Phono Ground.
6. CD/Aux Input.
7. Tuner Input.
8. Tape Input-Output.
9. Soft Clipping.
10. Speaker Impedance.
11. Preamp Out/Main In



FRONT PANEL

1. Power.
2. Phones.
3. Bass.
4. Treble.
5. Balance.
6. Input Selector.
7. Tape Monitor.
8. Mono.
9. Low Level.
10. Volume.

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INTEGRATED AMPLIFIER SPECIFICATION NAD 3020i/3225PE

Power Amplifier Section Stereo Mode

	3020i	3225PE
CONTINUOUS AVERAGE POWER	20W (13dbW)	25W (14dbW)
OUTPUT INTO 8 OHMS		
(Min. Power per channel, 20Hz-20KHz, both channels driven, with no more than rated distortion)		
Rated Distortion	0.03 %	0.03 %
(THD 20Hz-20KHz)		
Clipping Power	30W	40W
(Maximum continuous power per channel)		
IHF Dynamic Headroom at 8 ohms	+3db	+4db
IHF Dynamic Power (Maximum short term power per channel)		
8 ohms:	40W(16dbW)	60W(18dbW)
4 ohms:	40W(16dbW)	85W(19dbW)
2 ohms:	50W(17dbW)	90W(19.5dbW)
Slew Factor	> 50	> 50
Slew Rate	15V/uSec	15V/uSec
Damping Factor	> 40	> 40
(ref. 8 ohms 50 Hz)		
Input Impedance	R=20Kohm C=470pf	R=20Kohm C=820pf
Input Sensitivity	1W 20W 25W	200mV 900mV
at 8 ohms		1V
Voltage Gain	X14 (23db)	X14 (23db)
Frequency Response	6Hz to 80KHz +0,-3db	6Hz to 60KHz +0,-3db
Signal/Noise ratio, A Weighted		
Ref. 1W	100db	100db
Ref. Rated power	113db	114db
THD	< 0.03 %	< 0.03 %
(Total Harmonic Distortion 20Hz-20KHz, from 250mW to rated output)		
SMPTE I.M.	< 0.03 %	< 0.03 %
(Intermodulation Distortion, 60Hz+7KHz, 4:1 From 250mW to rated output)		
IHF I.M.	< 0.03 %	< 0.03 %
(CCIF IM Distortion, 19+20KHz at rated output)		
Preamplifier Section		
Phono Input		
Input Impedance (R and C)	MM: 47Kohm + 300pf	47Kohm + 300pf
Input Sensitivity ref. 1W/20W	MM: 0.55mV/2.4mV	
1W/25W 1KHz	MM: 0.52mV/2.5mV	
Input Overload at 20Hz	MM: 20mV	20mV
1KHz	200mV	200mV
20KHz	1.7V	1.7V
RIAA Accuracy	+/-0.5db	+/-0.5db
Signal/Noise ratio (A-Weighted with cartridge connected)		
ref. 5mV in.	MM: 75db	75db
Line Level Inputs (CD, Video, Tape)		
Input Impedance (R and C)	40Kohm + 440pf	40Kohm + 440pf
Input Sensitivity ref. 1W/20W	33mV/150mV	
1W/25W		34mV/160mV
Maximum Input Signal	> 10V	> 10V
Signal/Noise ratio (ref. 1W)	87db	87db
(A Weighted) (ref. rated power)	100db	101db
Frequency Response, 20Hz-20KHz	+0.5db, -1db -3db at 12Hz	+0.5db, -1db -3db at 12Hz
Infrasonic Filter	18db/Octave	18db/Octave
THD (20Hz-20KHz at 5V RMS Out)	0.01 %	0.01 %
Line Level Outputs		
Preamp Output Impedance	600 ohms	600 ohms
Maximum Output Level	14V	12V
Tape output Impedance	Source Z + 2K ohms	Source Z + 2K ohms
Controls		
Treble	10KHz +/- 7db	+/- 7db
Bass	50Hz +/- 10db	+/- 10db
Audio Muting (Low Level)	-20db	-20db
Power Consumption	140W	150W
Net Weight	5Kg	5Kg
Dimension (Width x Height x Depth)	420x80x250mm	420x80x250mm

ALIGNMENT METHOD

AUDIO SECTION 3225PE/3020i

IMPORTANT

Speaker impedance switch should be in 8 ohm position while adjust center voltage and idling current.

INITIAL ADJUSTMENT (No load connected)

A. CENTER VOLTAGE

1. Connector DC millivoltmeter to L channel output terminal.
2. Turn on and adjust to 0 V +/- 30mV with R411 (470 ohm). Connect DC millivoltmeter to R channel output terminal and adjust R412 to 0 V +/- 30mV.

B. IDLING CURRENT

1. Remove solder short across R455 and R456.
2. Connect DC millivoltmeter across R455 (1 ohm) (output transistor's collector resistor) and adjust R443 for 26-30mV reading on meter. Repeat adjustment with R444, connecting meter across R456 (1 ohm).
3. Leave power on for minimum 5 minutes.

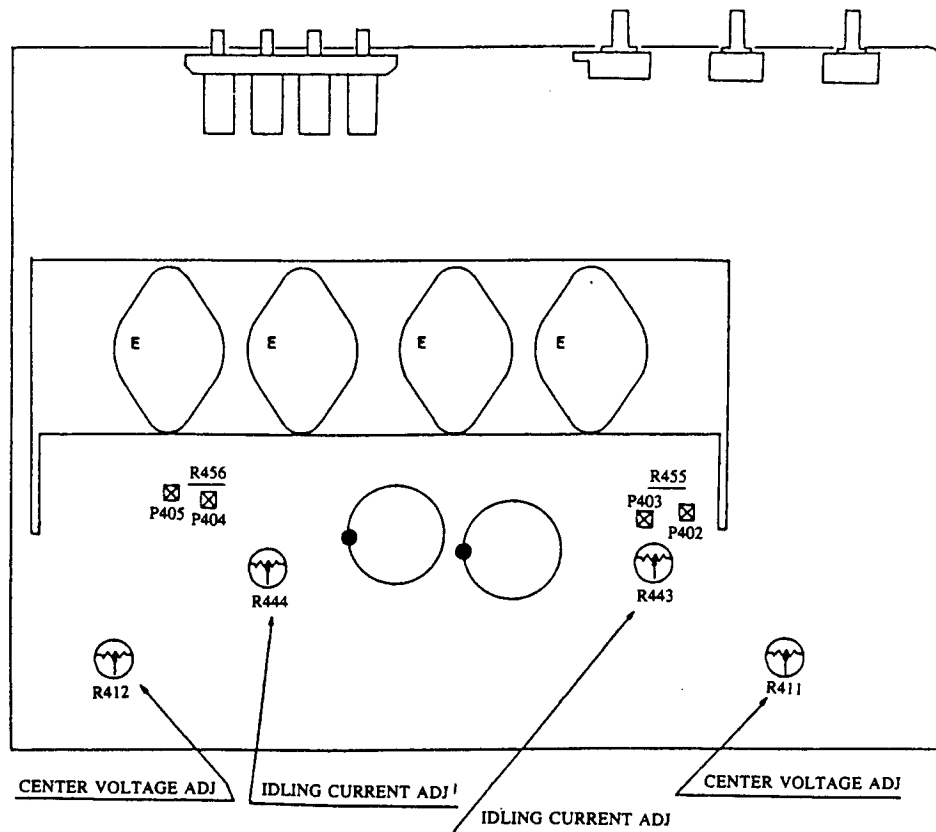
FINAL ADJUSTMENT

C. CENTER VOLTAGE

1. Repeat step A about.

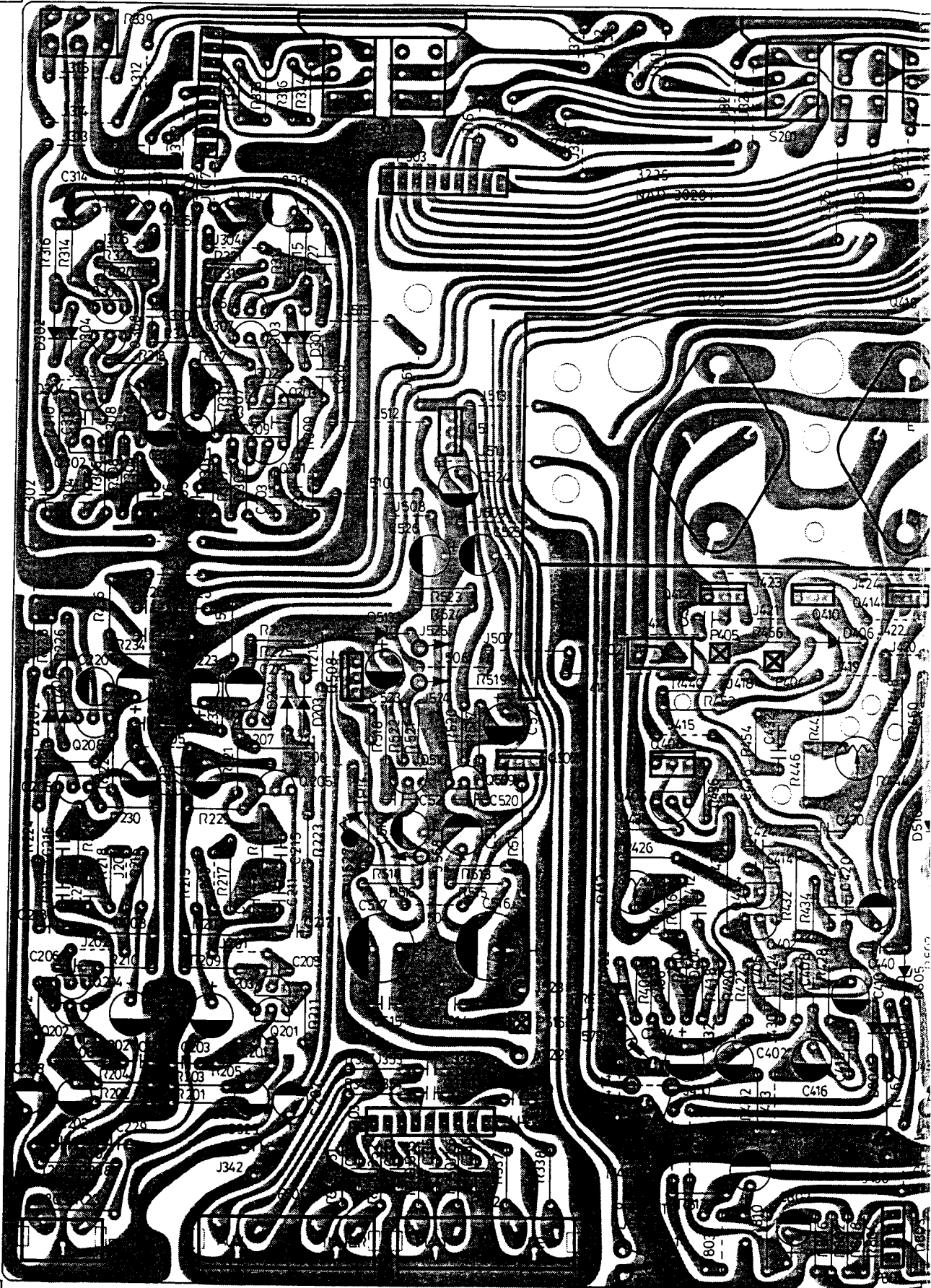
D. IDLING CURRENT

1. Repeat step B and adjust with R443, R444 for 30mV reading on meter.
2. After the alignment is finished, 1 ohm resistor R455, R456 is shorted by solder short.

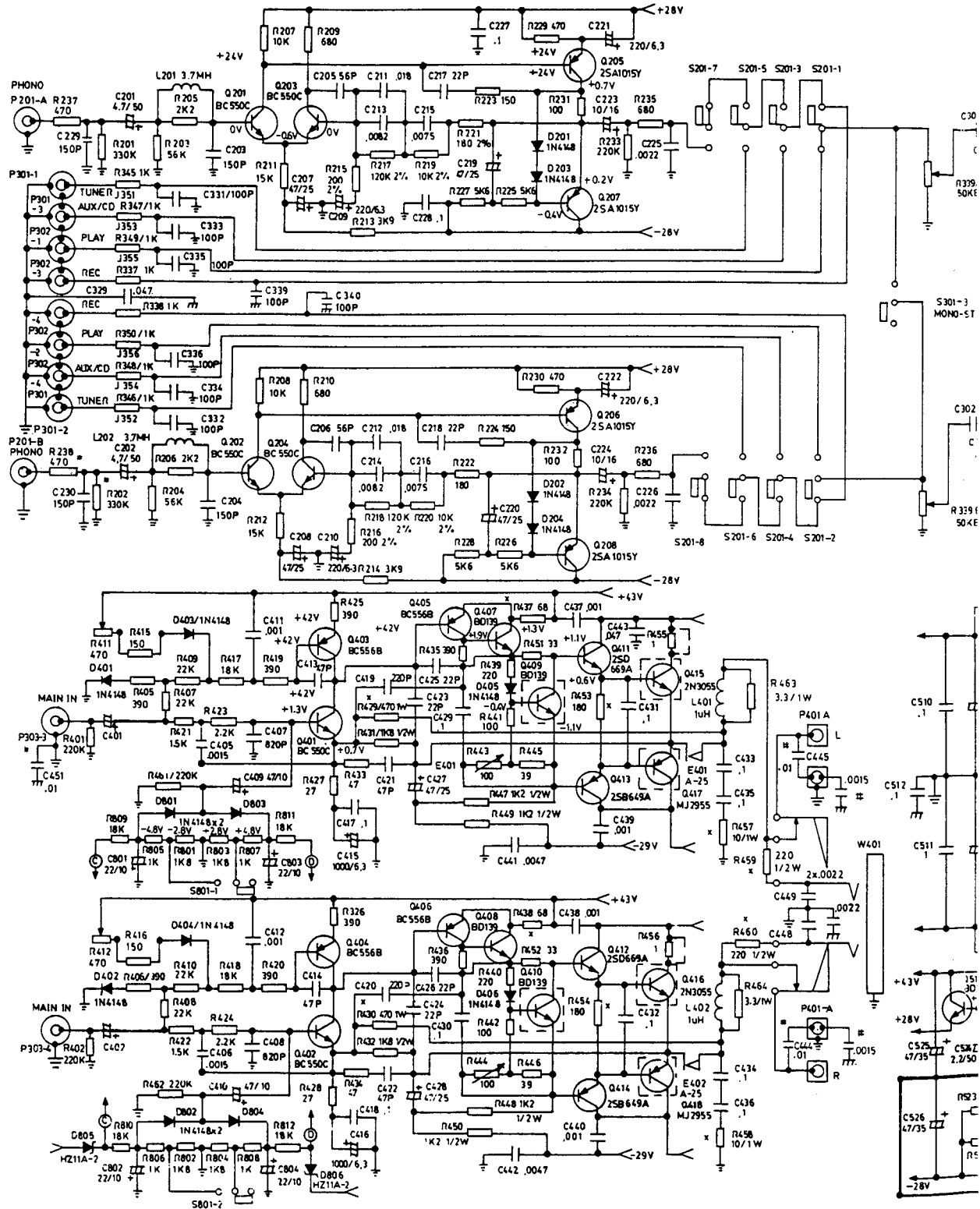


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NAD3225PE AMPLIFIER PCB LAYOUT

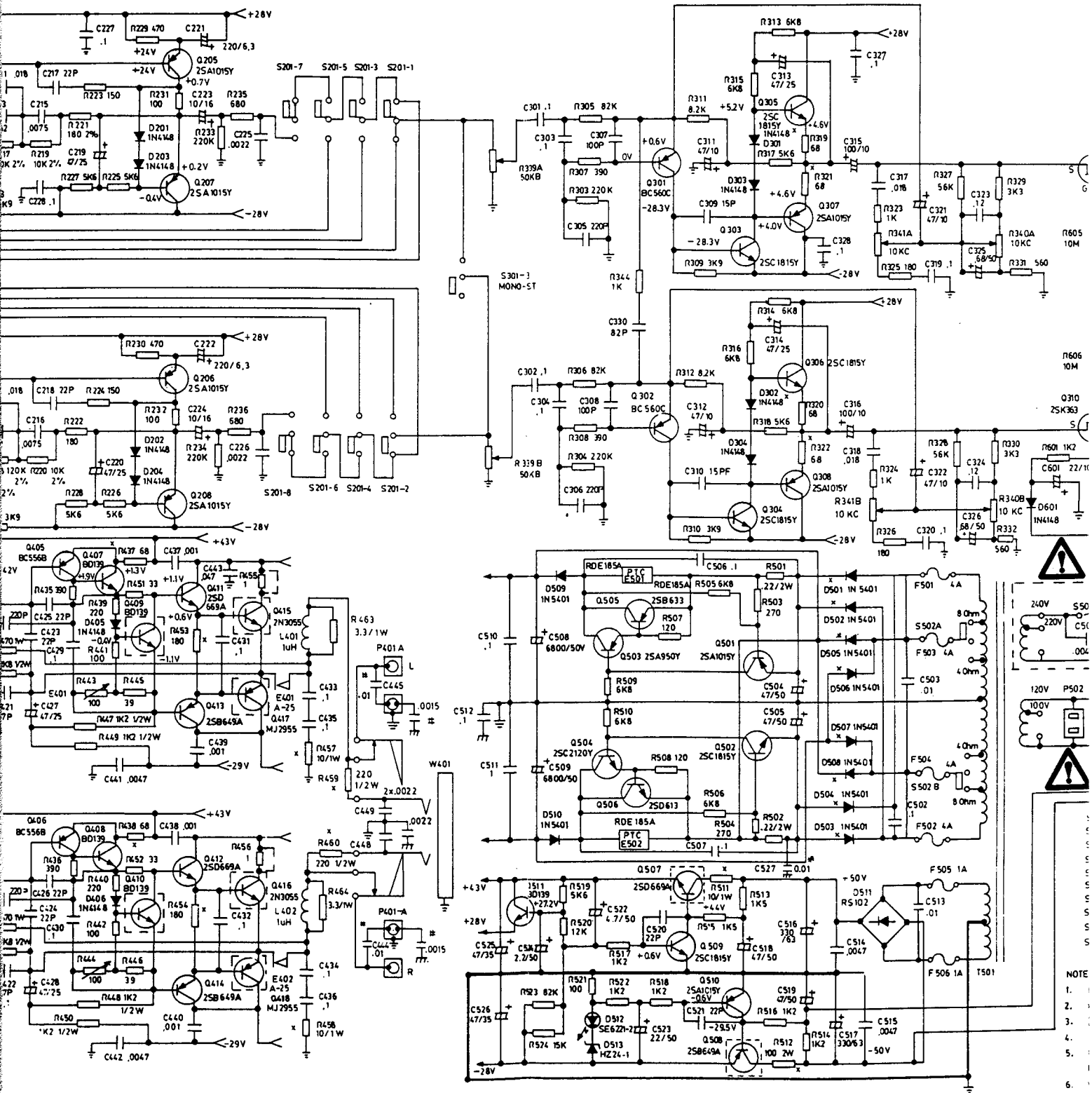


SCHEMATIC DIAGRAM NAD3225PE AMI



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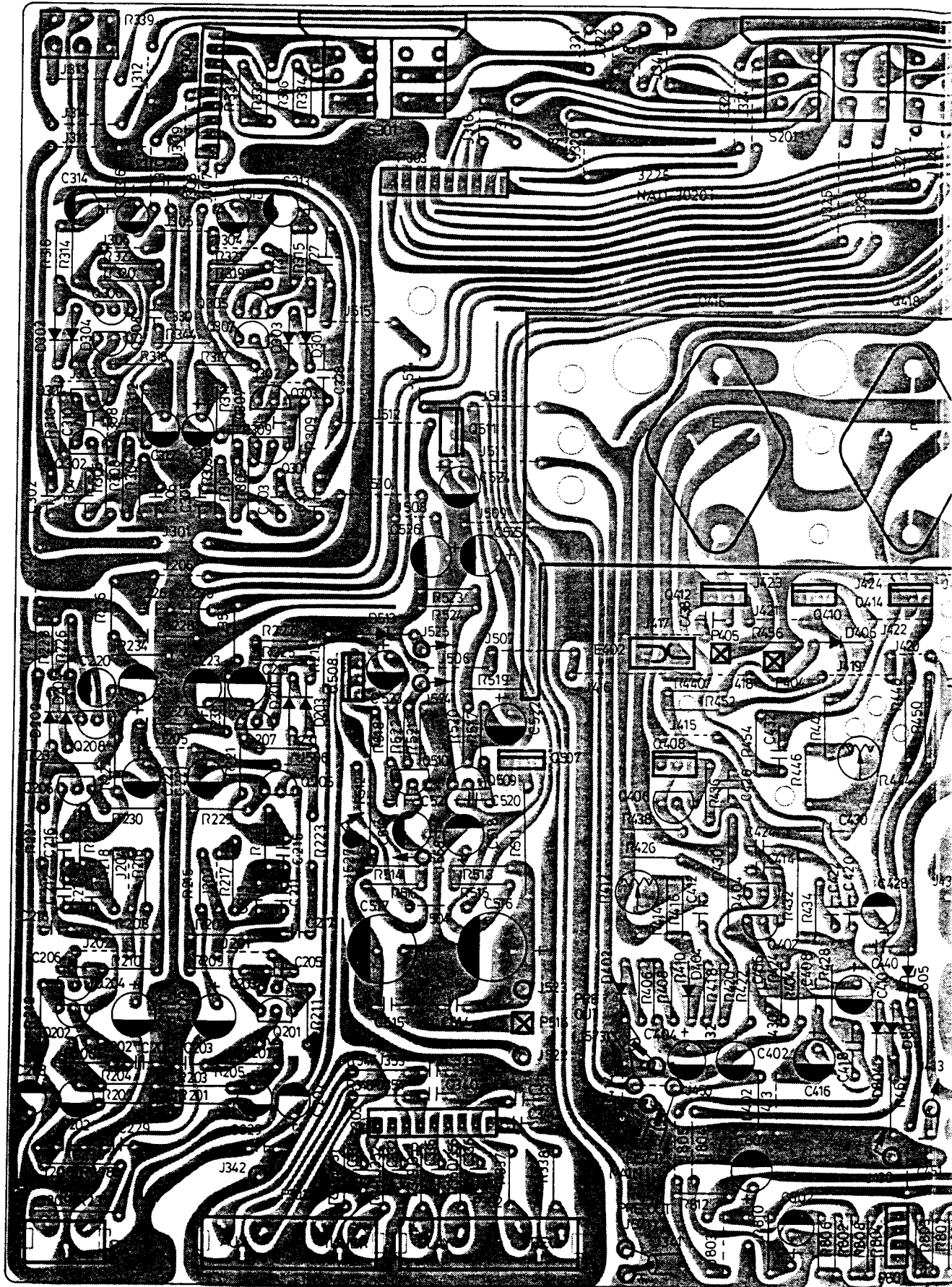
SCHEMATIC DIAGRAM NAD3225PE AMPLIFIER



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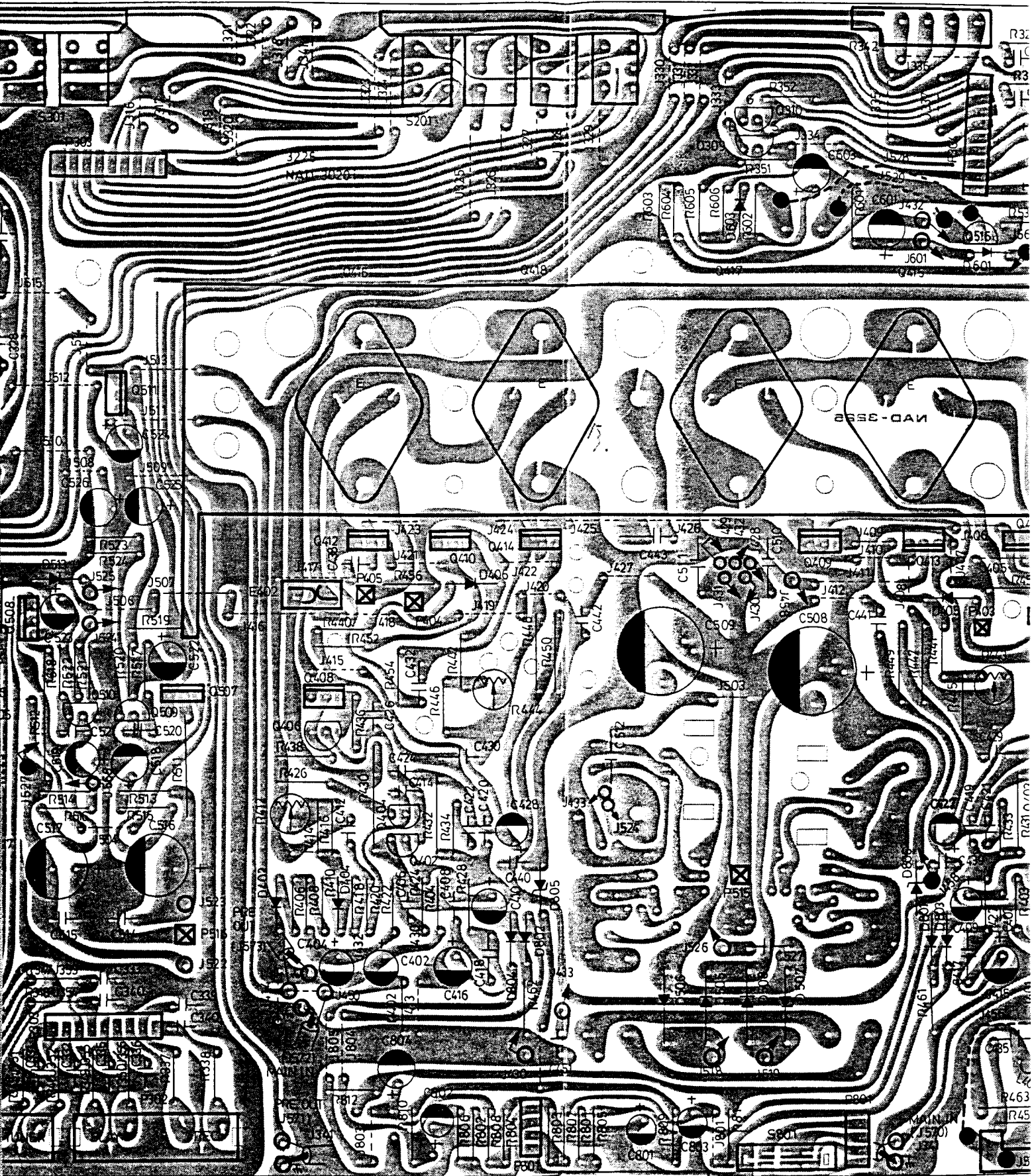
NOTE
1.
2.
3.
4.
5.
6.

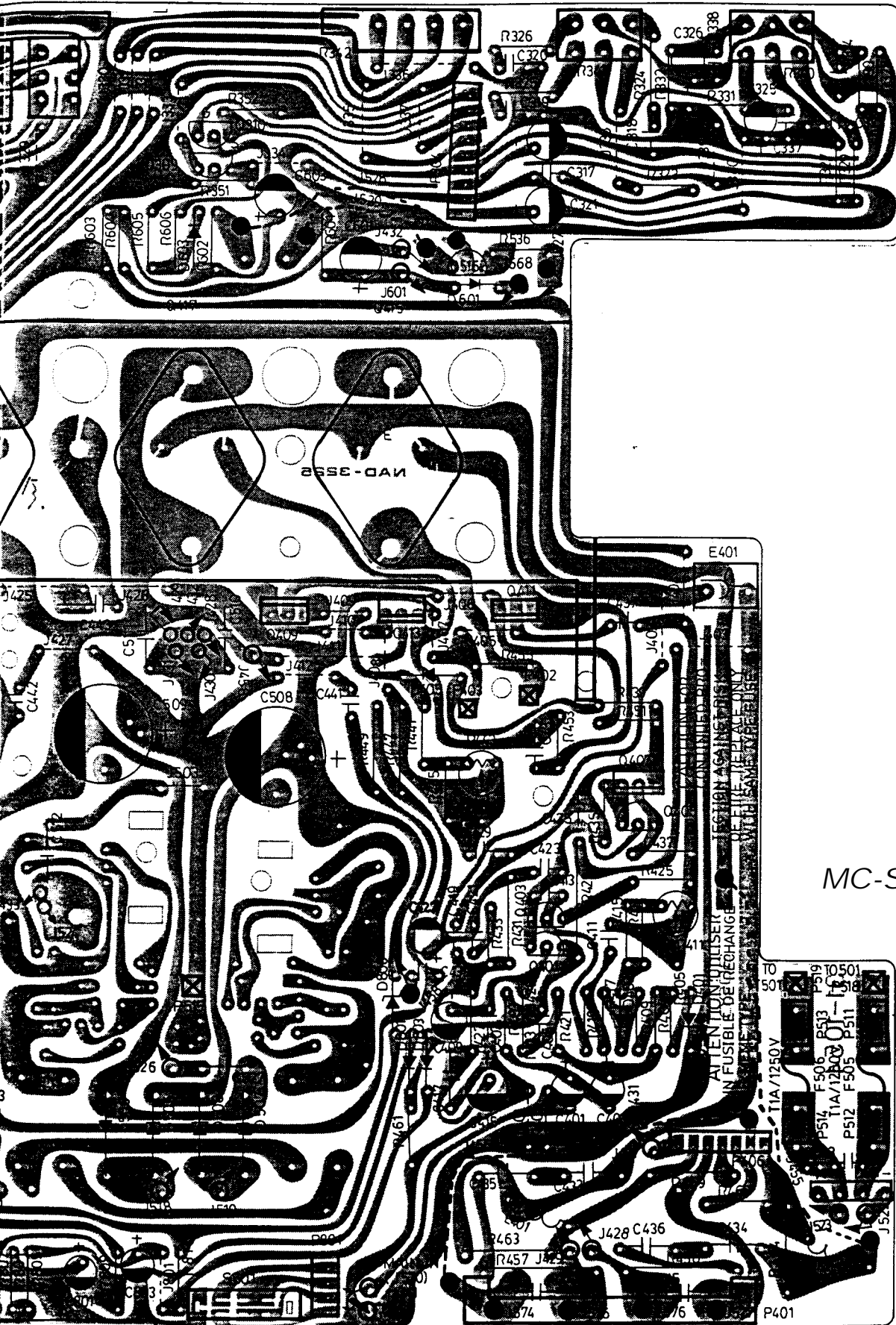
NAD3020i AMPLIFIER PCB LAYOUT



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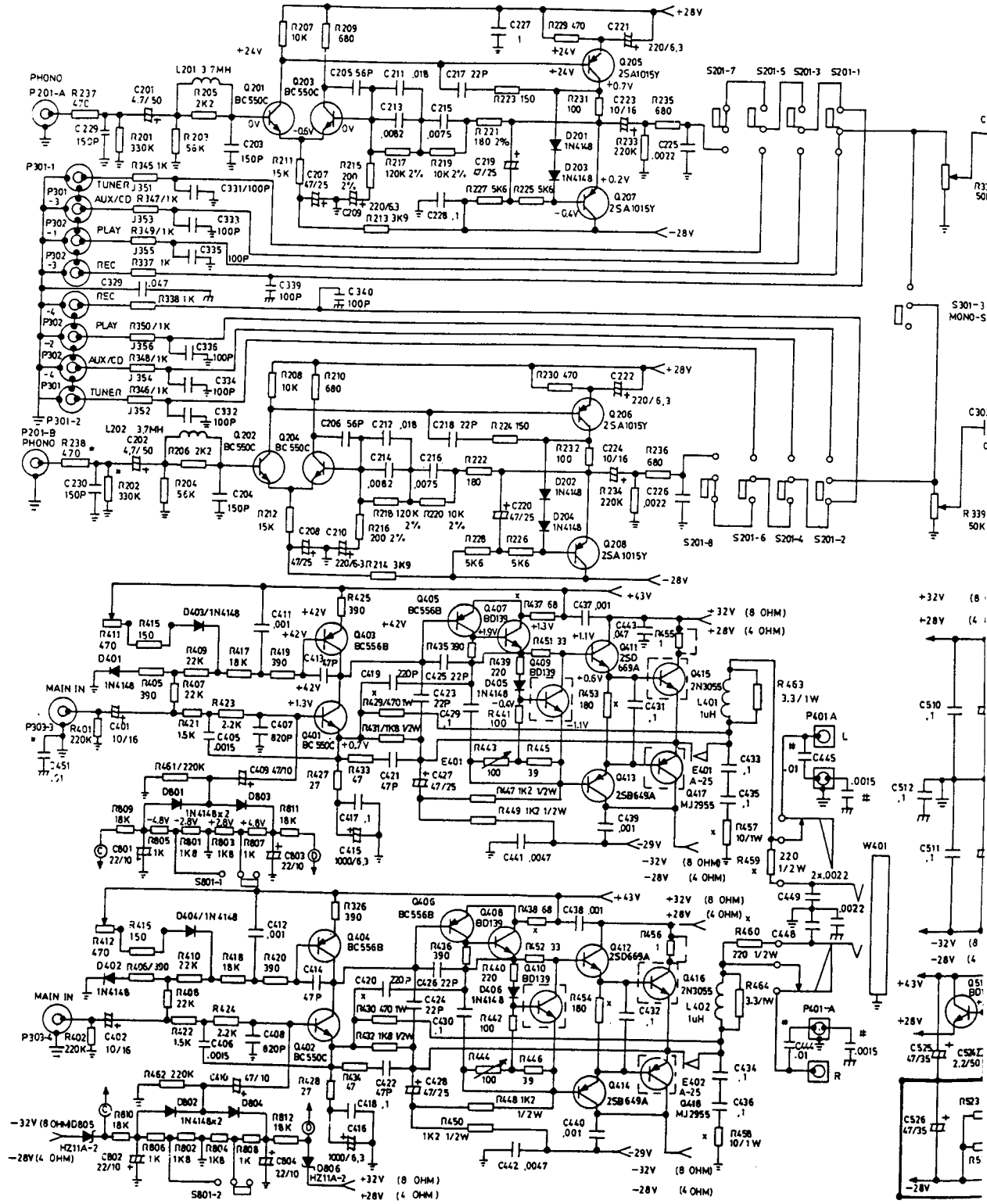
AMPLIFIER PCB LAYOUT



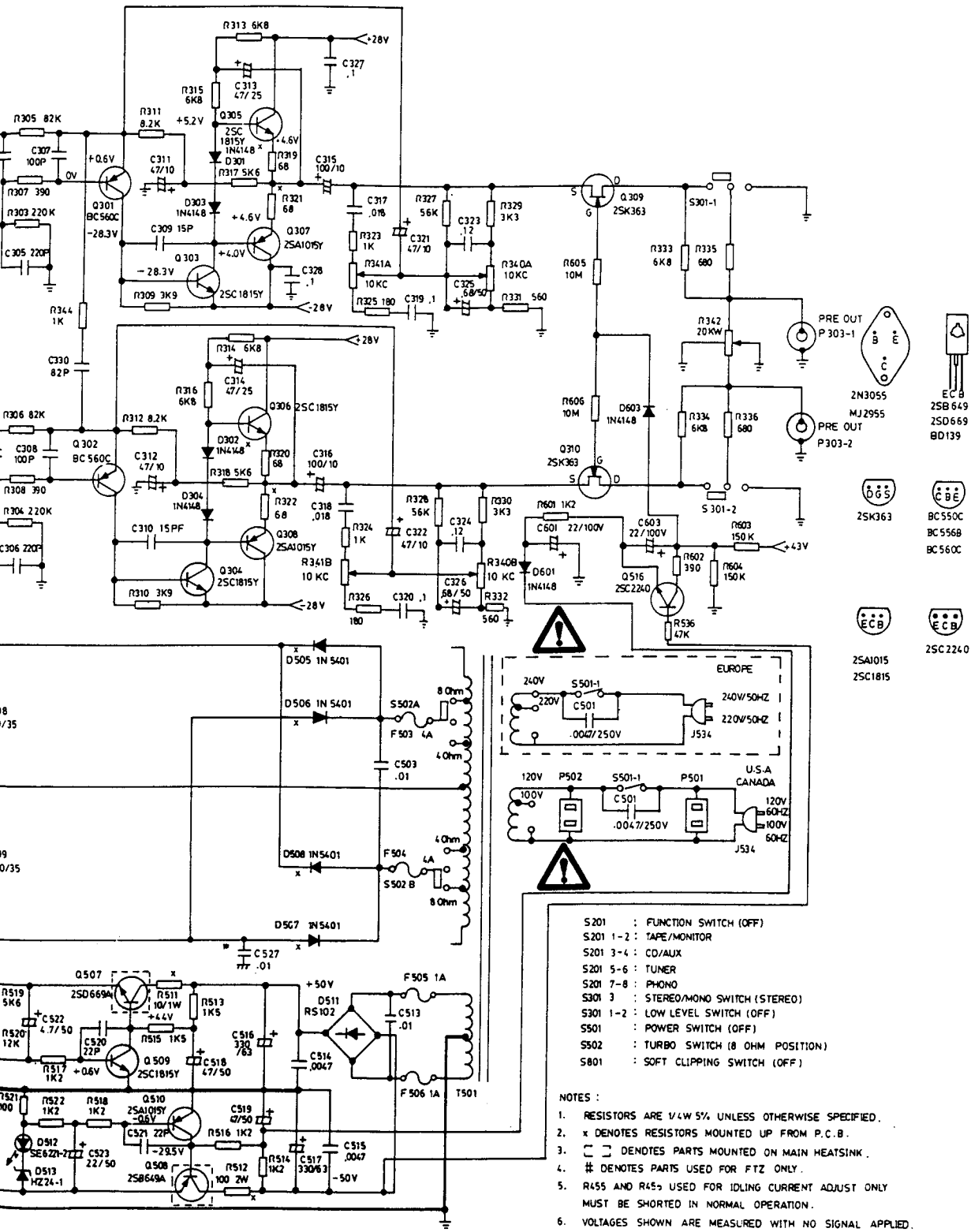


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SCHEMATIC DIAGRAM NAD3020i AMPLIFIER



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- S201 : FUNCTION SWITCH (OFF)
- S201 1-2 : TAPE/MONITOR
- S201 3-4 : CD/AUX
- S201 5-6 : TUNER
- S201 7-8 : PHONO
- S301 3 : STEREO/MONO SWITCH (STEREO)
- S301 1-2 : LOW LEVEL SWITCH (OFF)
- S501 : POWER SWITCH (OFF)
- S502 : TURBO SWITCH (8 OHM POSITION)
- S801 : SOFT CLIPPING SWITCH (OFF)

- NOTES :
1. RESISTORS ARE 1/4W 5% UNLESS OTHERWISE SPECIFIED.
 2. x DENOTES RESISTORS MOUNTED UP FROM P.C.B.
 3. □ DENOTES PARTS MOUNTED ON MAIN HEATSINK.
 4. # DENOTES PARTS USED FOR FTZ ONLY.
 5. R455 AND R456 USED FOR IDLING CURRENT ADJUST ONLY MUST BE SHORTED IN NORMAL OPERATION.
 6. VOLTAGES SHOWN ARE MEASURED WITH NO SIGNAL APPLIED.

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3225PE/3020i PARTS LIST

SYMBOL	PART NO.	DESCRIPTION	REF.
C201 C202	573-11M7547	Ele. Cap. 4.7uF +-20%	50V
C203 C204	571-071150	Cer. Cap. 150PF +-5%	50V
C205 C206	571-0170560	Cer. Cap. 56PF +-5%	50V
C207 C208	573-11M3647	Ele. Cap. 47uF +-20%	25V
C209 C210	573-11M3722	Ele. Cap. 220uF +-20%	100V
C211 C212	572-110318	Mylar Cap. 0.018uF +-5%	100V
C213 C214	572-110282	Mylar Cap. 0.0082uF +-5%	100V
C215 C216	572-110275	Mylar Cap. 0.0075uF +-5%	100V
C217 C218	571-0170220	Cer. Cap. 22PF +-5%	50V
C219 C220	573-11M5647	Ele. Cap. 47uF +-20%	10V
C221 C222	573-11M3722	Ele. Cap. 220uF +-20%	10V
C223 C224	573-11M4610	Ele. Cap. 10uF +-20%	16V
C225 C226	572-110222	Mylar Cap. 0.0022uF +-5%	100V
C227 C228	571-0274100	Cer. Cap. 0.1uF +-20%	50V
C229 C230	571-071150	Cer. Cap. 150PF +-5%	50V
C301 C302	572-110410	Mylar Cap. 0.1uF +-5%	100V
C303 C304	572-110410	Mylar Cap. 0.1uF +-5%	100V
C305 C306	571-0711220	Cer. Cap. 220PF +-5%	50V
C307 C308	571-071100	Cer. Cap. 100PF +-5%	50V
C309 C310	571-0710150	Cer. Cap. 15PF +-5%	50V
C311 C312	573-11M3647	Ele. Cap. 47uF +-20%	25V
C313 C314	573-11M5647	Ele. Cap. 100uF +-20%	10V
C315 C316	573-11M3710	Mylar Cap. 0.018uF +-5%	100V
C317 C318	572-110318	Mylar Cap. 0.1uF +-5%	100V
C319 C320	572-110410	Ele. Cap. 47uF +-20%	10V
C321 C322	573-11M3647	Ele. Cap. 0.12uF +-5%	100V
C323 C324	572-110412	Ele. Cap. 0.68uF +-20%	50V
C325 C326	573-11M7468	Cer. Cap. 0.047uF +-20%	50V
C327 C328	571-0274100	Cer. Cap. 82PF +-10%	50V
C329 C443	571-0273470	Cer. Cap. 100PF +-5%	50V
C330 C331	571-0710820	Cer. Cap. 47uF +-20%	16V
C332 C333	571-071100	Cer. Cap. 100PF +-5%	50V
C334 C335	571-071100	Cer. Cap. 100PF +-5%	50V
C336 C337	571-071100	Cer. Cap. 100PF +-5%	50V
C338 C339	571-071100	Cer. Cap. 100PF +-5%	50V
C401 C402	573-11M4610	Ele. Cap. 10uF +-20%	10V
C403 C406	572-110215	Mylar Cap. 0.0015uF +-5%	100V
C407 C408	571-0711820	Cer. Cap. 820PF +-5%	50V
C409 C410	573-11M3647	Ele. Cap. 47uF +-20%	10V
C411 C412	572-110210	Mylar Cap. 0.001uF +-5%	50V
C413 C414	571-0710470	Cer. Cap. 47uF +-20%	16V
C415 C416	573-11M3810	Ele. Cap. 100uF +-5%	50V
C417 C418	571-0274100	Cer. Cap. 0.1uF +-20%	50V
C419 C420	571-0711220	Cer. Cap. 220PF +-5%	50V
C421 C422	571-0710470	Cer. Cap. 220PF +-5%	50V
C423 C424	571-0710220	Cer. Cap. 47PF +-5%	50V
C425 C426	571-0710220	Cer. Cap. 22PF +-5%	50V
C427 C428	573-11M5647	Ele. Cap. 22uF +-5%	50V
C429 C430	572-110410	Mylar Cap. 0.1uF +-5%	100V
C431 C432	572-110410	Mylar Cap. 0.1uF +-5%	100V
C433 C434	571-0274100	Cer. Cap. 0.1uF +-20%	50V
C435 C436	571-0274100	Cer. Cap. 0.1uF +-20%	50V
C437 C438	571-0M72100	Cer. Cap. 0.001uF +-20%	50V
C439 C440	571-0M72100	Cer. Cap. 0.001uF +-20%	50V
C441 C442	571-0K72500	Cer. Cap. 0.005uF +-20%	50V
C444 C445	571-0K73100	Cer. Cap. 0.01uF +-10%	50V
C446 C447	571-071150	Cer. Cap. 0.0015uF +-5%	50V
C448 C449	571-0712220	Cer. Cap. 0.0022uF +-5%	50V
C450 C451	571-0712220	Cer. Cap. 0.0022uF +-5%	50V
C501 C527	571-0K73100	Cer. Cap. 0.01uF +-10%	50V
C502 C503	572-11M50310	Mylar Cap. 0.01uF +-5%	50V
C504 C505	573-11M7647	Ele. Cap. 47uF +-20%	50V
C506 C507	573-11M7647	Ele. Cap. 0.1uF +-20%	50V
C508 C509	573-11M5647	Ele. Cap. 47uF +-20%	35V
C508 C509	573-11T7868	Ele. Cap. 0.1uF +-20%	35V
C510 C511	571-0274100	Cer. Cap. 680uF +-50%	50V
C512 C513	571-0274100	Cer. Cap. 0.1uF +-20%	50V
C514 C515	572-11M50310	Mylar Cap. 0.01uF +-5%	50V
C516 C517	573-11M8733	Cer. Cap. 0.005uF +-10%	50V
C518 C519	573-11M7647	Cer. Cap. 330uF +-20%	63V
C520 C521	571-0710220	Ele. Cap. 47uF +-20%	50V
C522 C523	573-11M7547	Ele. Cap. 22PF +-5%	50V
C524 C525	573-11M7622	Ele. Cap. 22uF +-20%	50V
C526 C527	573-11M7622	Ele. Cap. 2.2uF +-20%	50V
C528 C529	573-11M6647	Ele. Cap. 47uF +-20%	50V
C601 C603	573-11M4622	Ele. Cap. 47uF +-20%	35V
C801 C802	573-11M4622	Ele. Cap. 22uF +-20%	100V
C803 C804	573-11M4622	Ele. Cap. 22uF +-20%	16V
D201 D202	501-21N4148	Diode 1N4148	
D301 D302	501-21N4148	Diode 1N4148	
D303 D304	501-21N4148	Diode 1N4148	
D401 D402	501-21N4148	Diode 1N4148	
D403 D404	501-21N4148	Diode 1N4148	
D405 D406	501-21N4148	Diode 1N4148	
D501 D502	501-11N5401	Diode 1N5401 3A	100V
D503 D504	501-11N5401	Diode 1N5401 3A	100V
D505 D506	501-11N5401	Diode 1N5401 3A	100V
D507 D508	501-11N5401	Diode 1N5401 3A	100V
D509 D510	501-11N5401	Diode 1N5401 3A	100V
D511 D512	501-7RS102	Diode 100V 1A	
D513 D514	502-1R2551	LED TLG208	Green
D601 D603	501-21N4148	Zener 24V 0.5W	
D801 D802	501-21N4148	Diode 1N4148	
D803 D804	501-21N4148	Diode 1N4148	
D805 D806	501-40110-005	Zener 11V 0.5W	
E401 E402	530-25600-B	Breaker 3.3A	
E401 E402	530-35400-B	Breaker 3.3A	
E501 E502	549-21851	PTC 1.85A	
F501 F502	530-4041B	Fuse 4A/250V	
F501 F502	530-4051A	Fuse 4A/125V	UL/CSA
F503 F504	530-4041B	Fuse 4A/250V	Semko
F503 F504	530-4051A	Fuse 4A/125V	UL/CSA
F505 F506	530-1041	Fuse 1A/250V	UL/CSA
F505 F506	530-1051A	Fuse 1A/250V	Semko
J534 J535	529-51A01	AC Cord	UL/CSA
J534 J535	529-53B01	AC Cord	UL/CSA
J534 J535	529-53B01	AC Cord	UL/CSA
J534 J535	529-53B01	AC Cord	UL/CSA
L201 L202	524-837231	Coil 3.7 mH	
L401 L402	524-108051	Coil 1uH	
P201 P202	527-421201	Jack Signal 2P	
P501 P502	527-441101	Jack Signal 4P	Gold Plated
P303 P304	563-1260922	Ribbon Connector	220mm 9P
P304 P406	563-1260933	Ribbon Connector	330mm 9P
P501 P502	527-3125U	Ribbon Connector	270mm 7P
P503 P504	538-0520	AC Outlet	
P505 P506	538-0520	Fuse Clip	
P507 P508	538-0520	Fuse Clip	
P509 P510	538-0520	Fuse Clip	
P511 P512	538-0520	Fuse Clip	
P513 P514	538-0520	Fuse Clip	
P515 P516	527-5011	Pin	
P518 P519	527-6002	Bushing	Power
P520 P521	527-5100	Pin	
R801 R802	563-1260412	Ribbon Connector	120mm 4P
Q201 Q202	517-BC350C	Tr. BC350C	
Q203 Q204	517-BC350C	Tr. BC350C	
Q205 Q206	517-2SA1015Y	Tr. 2SA1015Y	
Q207 Q208	517-2SA1015Y	Tr. 2SA1015Y	
Q301 Q302	517-BC560C	Tr. BC560C	

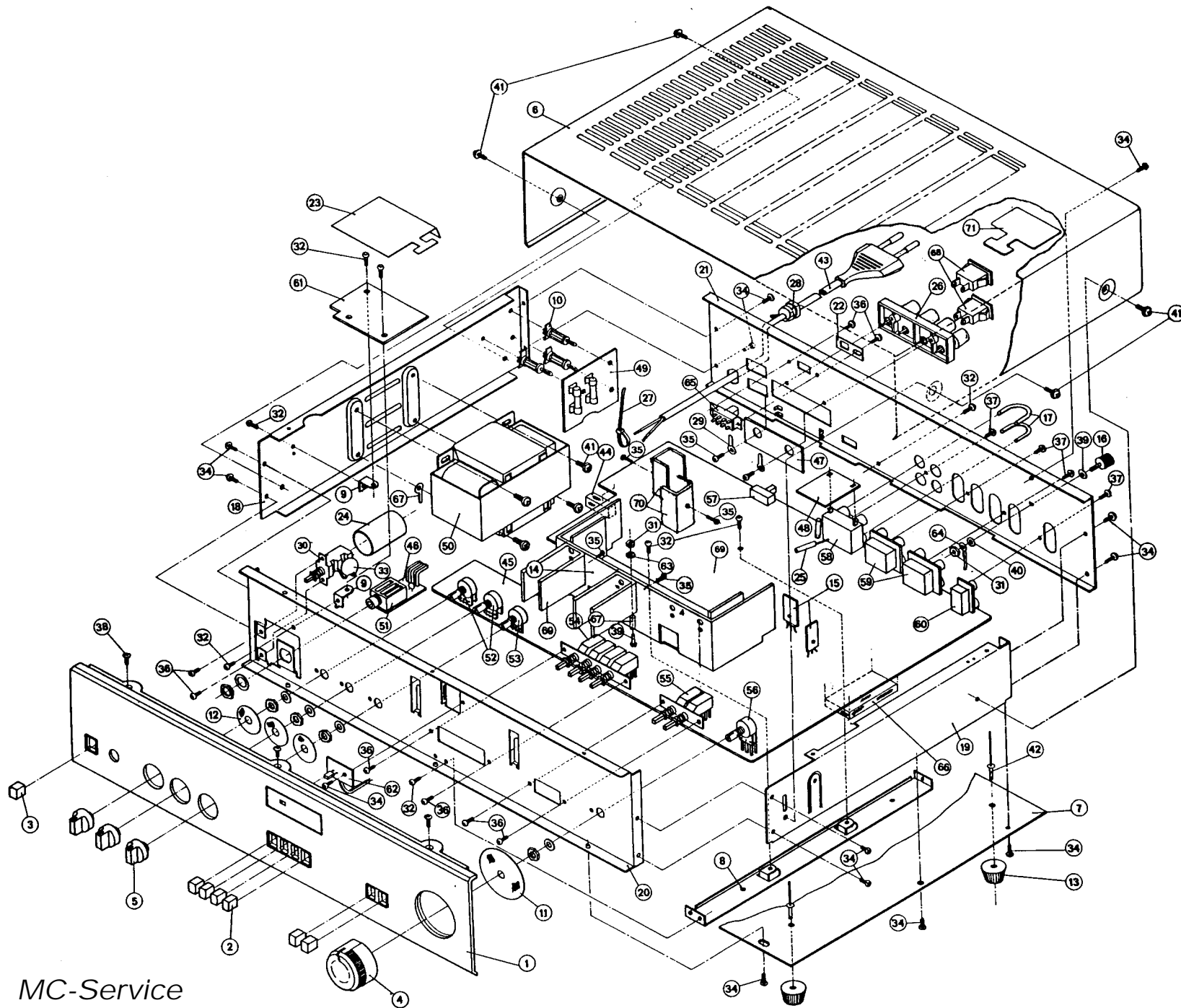
SYMBOL	PART NO.	DESCRIPTION	REF.
Q303 Q304	517-2SC1815Y	Tr. 2SC1815Y	
Q305 Q306	517-2SC1815Y	Tr. 2SC1815Y	
Q307 Q308	517-2SA1015Y	Tr. 2SA1015Y	
Q309 Q310	517-2SK363BL	Tr. 2SK363BL	
Q401 Q402	517-BC550C	Tr. BC550C	
Q403 Q404	517-BC556B	Tr. BC556B	
Q405 Q406	517-BC556B	Tr. BC556B	
Q407 Q408	517-BD139-10	Tr. BD139-10	
Q409 Q410	517-BD139-10	Tr. BD139-10	
Q411 Q412	517-2SD669AC	Tr. 2SD669AC	
Q413 Q414	517-2SB649A-C	Tr. 2SB649A-C	
Q415 Q416	517-2N3055	Tr. 2N3055	
Q417 Q418	517-MJ2955	Tr. MJ2955	
Q501 Q502	517-2SA1015Y	Tr. 2SA1015Y	3225
Q503 Q504	517-2SA950Y	Tr. 2SA950Y	3225
Q505 Q506	517-2SC2120Y	Tr. 2SC2120Y	3225
Q507 Q508	517-2SB633D	Tr. 2SB633D	3225
Q509 Q510	517-2SD613D	Tr. 2SD613D	3225
Q511 Q512	517-2SD669AC	Tr. 2SD669AC	3225
Q513 Q514	517-2SB649A-C	Tr. 2SB649A-C	
Q515 Q516	517-2SC1815Y	Tr. 2SC1815Y	
Q517 Q518	517-2SA1015Y	Tr. 2SA1015Y	
Q519 Q520	517-BD139-10	Tr. BD139-10	
Q521 Q522	517-2SC2240GR	Tr. 2SC2240GR	
R201 R202	704-13J3530	Res. Carb. 330K 1/4W +-5%	
R203 R204	704-13J4560	Res. Carb. 56K 1/4W +-5%	
R205 R206	704-13J3220	Res. Carb. 2.2K 1/4W +-5%	
R207 R208	704-13J4100	Res. Carb. 10K 1/4W +-5%	
R209 R210	704-13J2680	Res. Carb. 680 1/4W +-5%	
R211 R212	704-13J4150	Res. Carb. 15K 1/4W +-5%	
R213 R214	704-13J3390	Res. Carb. 3.9K 1/4W +-5%	
R215 R216	704-13G2200	Res. Carb. 100 1/4W +-5%	
R217 R218	704-13G5120	Res. Carb. 120K 1/4W +-5%	
R219 R220	704-13G4120	Res. Carb. 10K 1/4W +-5%	
R221 R222	704-13G2180	Res. Carb. 180 1/4W +-5%	
R223 R224	704-13J2150	Res. Carb. 150 1/4W +-5%	
R225 R226	704-13J3560	Res. Carb. 5.6K 1/4W +-5%	
R227 R228	704-13J3560	Res. Carb. 5.6K 1/4W +-5%	
R229 R230	704-13J2470	Res. Carb. 470 1/4W +-5%	
R231 R232	704-13J2100	Res. Carb. 100 1/4W +-5%	
R233 R234	704-13J5220	Res. Carb. 220K 1/4W +-5%	
R235 R236	704-13J2680	Res. Carb. 680 1/4W +-5%	
R237 R238	704-13J2470	Res. Carb. 470 1/4W +-5%	
R303 R304	704-13J5220	Res. Carb. 220K 1/4W +-5%	
R305 R306	704-13J4820	Res. Carb. 390 1/4W +-5%	
R307 R308	704-13J2390	Res. Carb. 8.2K 1/4W +-5%	
R309 R310	704-13J3390	Res. Carb. 3.9K 1/4W +-5%	
R311 R312	704-13J3820	Res. Carb. 8.2K 1/4W +-5%	
R313 R314	704-13J3680	Res. Carb. 6.8K 1/4W +-5%	
R315 R316	704-13J3680	Res. Carb. 6.8K 1/4W +-5%	
R317 R318	704-13J3560	Res. Carb. 5.6K 1/4W +-5%	
R319 R320	704-13J1680	Res. Carb. 68 1/4W +-5%	
R321 R322	704-13J1680	Res. Carb. 68 1/4W +-5%	
R323 R324	704-13J3100	Res. Carb. 1K 1/4W +-5%	
R325 R326	704-13J2180	Res. Carb. 180 1/4W +-5%	
R327 R328	704-13J4560	Res. Carb. 56K 1/4W +-5%	
R329 R330	704-13J3330	Res. Carb. 3.3K 1/4W +-5%	
R331 R332	704-13J2560	Res. Carb. 360 1/4W +-5%	
R333 R334	704-13J3680	Res. Carb. 6.8K 1/4W +-5%	
R335 R336	704-13J2680	Res. Carb. 680 1/4W +-5%	
R337 R338	704-13J3100	Res. Carb. 1K 1/4W +-5%	
R339	507-330B21	Res. VR 50KB x 2	
R340 R341	507-3103C21	Res. VR 10K x 2	
R342	507-3203W11-T	Res. VR 20KW	
R345 R346	704-13J3100	Res. Carb. 1K 1/4W +-5%	
R347 R348	704-13J3100	Res. Carb. 1K 1/4W +-5%	
R349 R350	704-13J3100	Res. Carb. 1K 1/4W +-5%	
R401 R402	704-13J5220	Res. Carb. 220K 1/4W +-5%	
R405 R406	704-13J2680	Res. Carb. 390 1/4W +-5%	
R407 R408	704-13J4220		

3225PE/3020i EXPLODED VIEW PARTS

ITEM	PARTS NO.	DESCRIPTION	QTY
1.	055-131A	Panel — Front	1
2.	073-1620	Button — Push	6
3.	073-1625	Button — Push (Power)	1
4.	081-1100	Knob — Volume	1
5.	081-1110	Knob — Control	3
6.	049-069A	Cover — Top	1
7.	049-0700	Cover — Bottom	1
8.	078-8120	Bracket — Middle	1
9.	078-8130	Bracket — Tuner PCB	2
10.	080-2090	Supporter — Circuit Board	3
11.	082-4490	Felt — Volume Knob	1
12.	082-4500	Felt — Control Knob	3
13.	082-4510	Rubber — Foot	4
14.	083-0710	Heat Sink	1
15.	083-0720	Heat Sink (S)	2
16.	085-1350	Thumb Screw Stud	1
17.	085-1360	Bar — Shorting	2
18.	095-7070	Plate — Left	1
19.	095-7080	Plate — Right	1
20.	095-7090	Plate — Front	1
21.	095-710E	Plate — Back (220V 50Hz 140W)	1
22.	095-7110	Plate — Switch	1
23.	095-7130	Plate — Terminal Board Cover	1
24.	099-0760	UL Heat Shrinkable Tube	0.03
25.	099-0770	UL Heat Shrinkable Tube	0.11
26.	099-0850	Loudspeaker Terminal Block	1
27.	527-060	Cable Tie 4"	8
28.	527-6002	Micro Bushing 4N40	1
29.	027-5000	Soldering Tag	2
30.	526-3110-1	Push Bottom Switch	1
31.	048-0620	Nut — 3.5mm	1
32.	093-3008BTBB(H)	Self-Tapping Screw 3 x 8 BTBB	
33.	571-0ME2470	Ceramic Capacitor	1
34.	093-3006BTBB(H)	Self-Tapping Screw 3 x 6 BTBB	1
35.	093-3006BTB	Self-Tapping Screw 3 x 6 BTB	8
36.	093-3008BH	Machine Screw M 3 x 0.5P x 8 BH	6
37.	093-3008BTBB	Self-Tapping Screw 3 x 8 BTBB	4
38.	093-3008KTB(H)	Self-Tapping Screw 3 x 8 KTB	3
39.	094-0740	Washer — Metal	1
40.	094-0760	Washer — External Tooth	1
41.	093-4006WHB(H)	Machine Screw M 4 x 0.7P x 6 WHB	2
42.	099-1100	Rivet	4
43.	529-51A01	AC Cord uL/CSA	1
	529-53B01	AC Cord BS	1
	529-53M01	AC Cord VDE/EMKO	1
	529-53S01	AC Cord SAA	1
44.	082-4020	Cushion	
45.	531-1054	Main Board	1
46.	531-9016	Headphone Board	1
47.	531-9015	Ext. Speaker Board	1
48.	531-2201	Ext. Pre-Amp Board	1
49.	531-V001	Fuse Board	1
50.	521-167AMV501	Power Transformer EI 67 x 55 mm	1
51.	527-4020	Headphone Jack 6.5mm	1
52.	507-3103C21	Volume 10K C (D) W/O Switch	2
53.	507-3203W11-T	Volume 20K W (S) W/O Switch	1
54.	526-3102	Push Switch 2I2I2S (SPUF41) Alps	1
55.	526-3103	Push Switch 2S2S (SPUF21) Alps	1
56.	507-3503B21	Volume 50K B (D) W/O Switch	1
57.	526-52205	Slide Switch 2P2T	1
58.	527-441101	RCA Jack 4 Pos	1
59.	527-441101	RCA Jack 4 Pos	2
60.	527-421201	RCA Jack 2 Pos	1
61.	531-U001	Terminal Board	1
62.	531-7049	Power LED Board	1
63.	094-0190	Washer — Ext. Tooth	16
64.	027-6003	Soldering Tag	1
65.	526-3105	Slide Switch 2P2T RG 10mm	1
66.	082-4530	Foam — Sheet	1
67.	027-6004	Soldering Tag	1
68.	527-3125U	AC Outlet (for UL/CSA only)	2
69.	083-0780	Heat Sink Fin (3225PE only)	4
70.	083-0790	Heat Sink Power Envelope (3225PE only)	2
71.	095-7120	Plate AC Socket Cover (UL/CSA, A/A1 only)	1

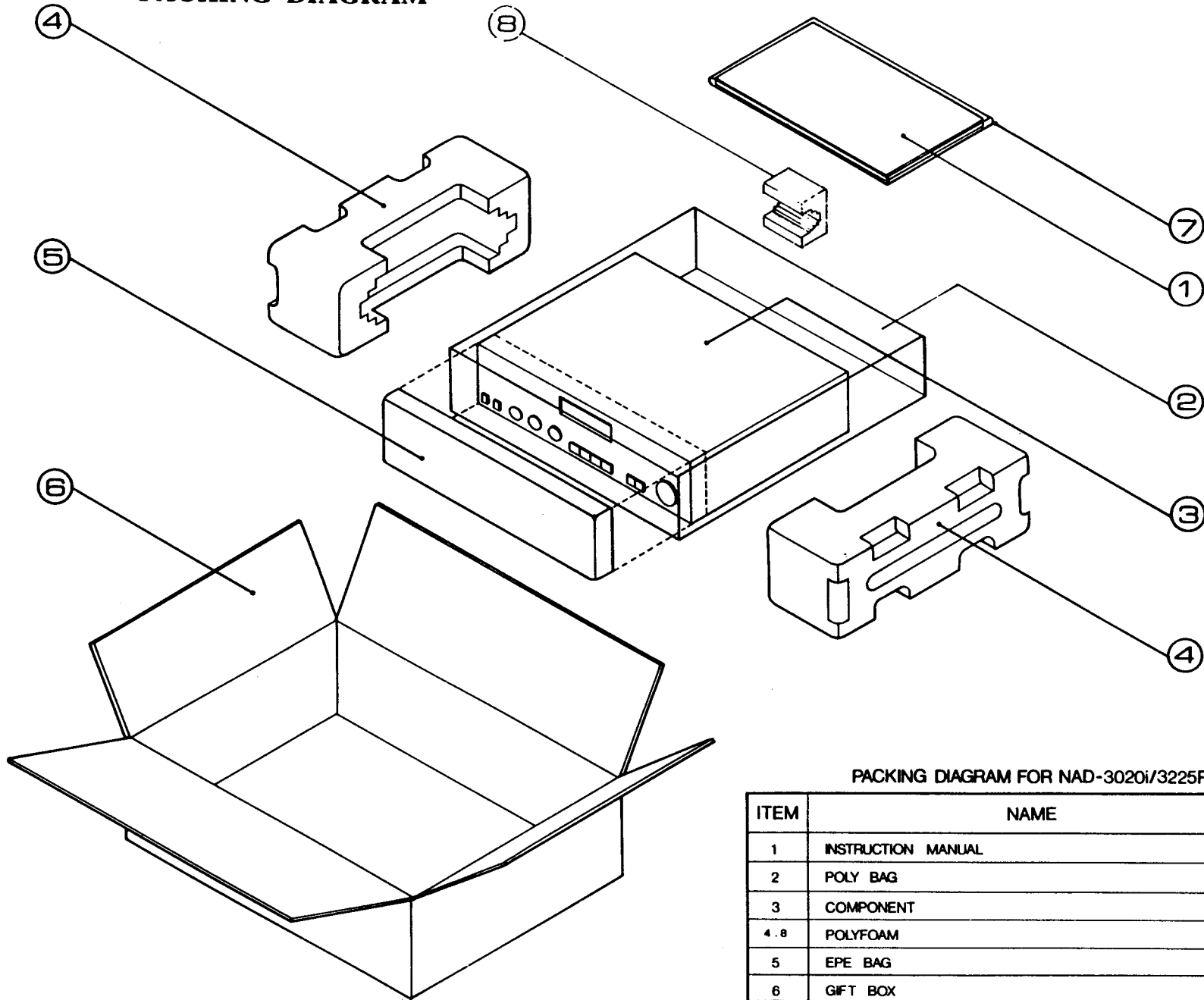
MC-Service

EXPLODED VIEW



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PACKING DIAGRAM



PACKING DIAGRAM FOR NAD-3020i/3225PE

ITEM	NAME	QTY
1	INSTRUCTION MANUAL	1
2	POLY BAG	1
3	COMPONENT	1
4, 8	POLYFOAM	2 1
5	EPE BAG	1
6	GIFT BOX	1
7	POLY BAG	1

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