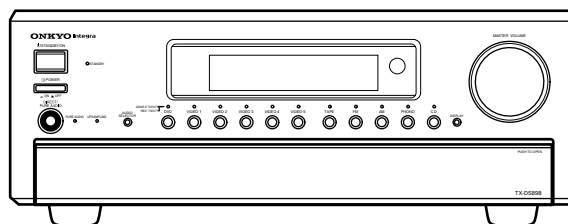


# ONKYO® SERVICE MANUAL

092001


## AV RECEIVER MODEL TX-DS898



### Black, Golden and Silver models

BMDD	120V AC, 60Hz
BMPP, SMPP, BMPA, GMPA	230-240V AC, 50Hz
BMWT, GMWT, GMWR	120/220-230V AC, 50/60Hz
GMGT	220V AC, 50Hz

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  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 PART 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.

A B C D E F G H

BLOCK DIAGRAM

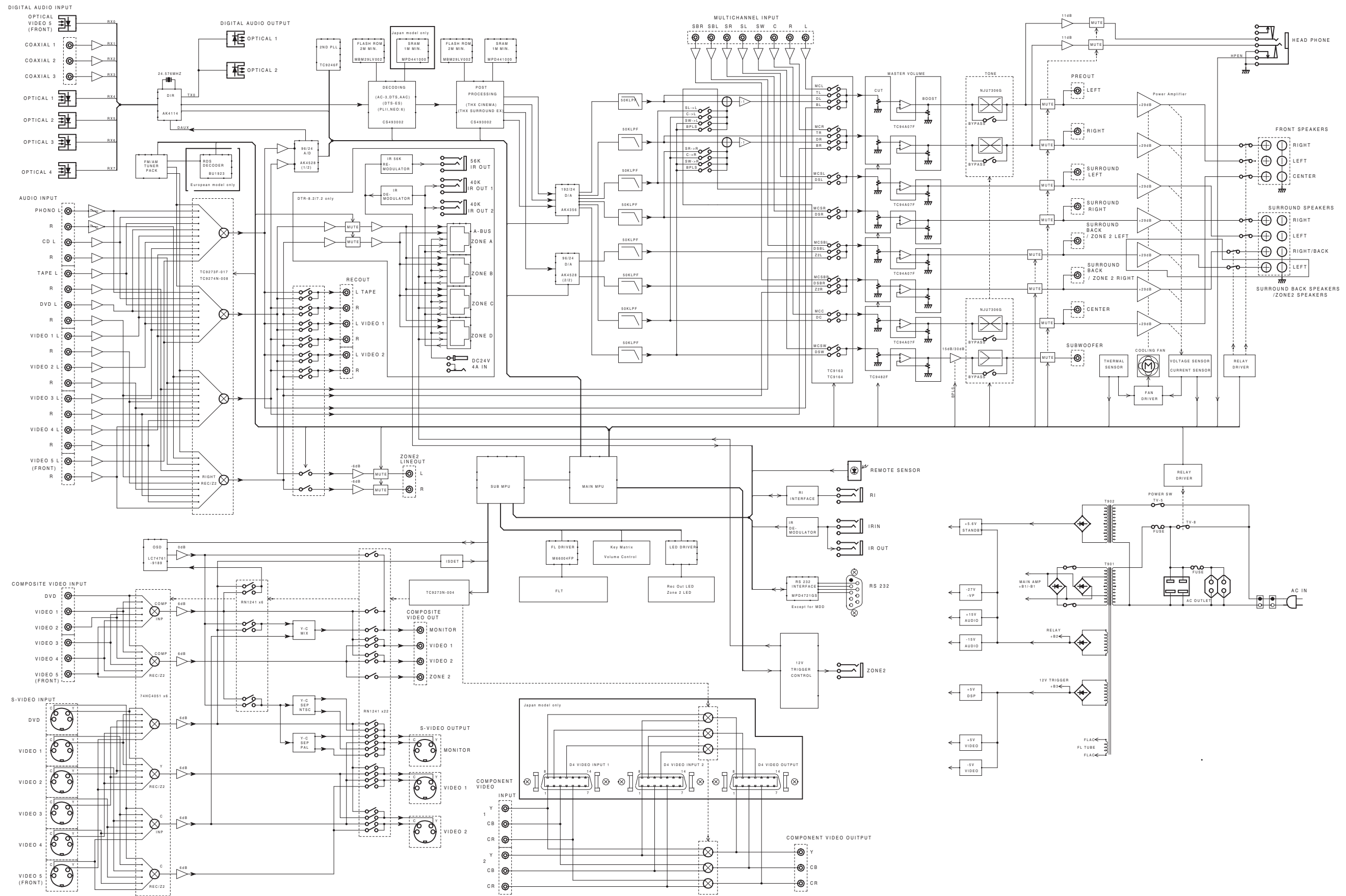
1

2

3

4

5



A

B

C

D

## ADJUSTMENT AND CONFIRMATION PROCEDURES

### Idling current adjustment

Before Idling adjustment, turn the trimming resistors R6040 to R6046 to counter clockwise.

Connect the DC voltmeter to sockets P6080 to P6086.

After turn POWER to ON, adjust the trimming resistors R6040, R6041 and R6042 so that the reading of voltmeter becomes 7.0 mV. (Front and center channels)

Adjust the trimming resistors R6043, R6044, R6045 and R6046 so that the reading of voltmeter becomes 5.0 mV. (Surround and surround back channels)

After adjustment, attach the top cover.

Confirm the voltage of points above after about five minutes.

### Front and center channels

When less than 9.0 mV, readjust the resistors above so that the voltage becomes 9.0 mV.

When 9.0 mV to 11.0 mV, you are not necessary to adjust.

When more than 11.0 mV, readjust the resistors above so that the voltage becomes 11.0 mV.

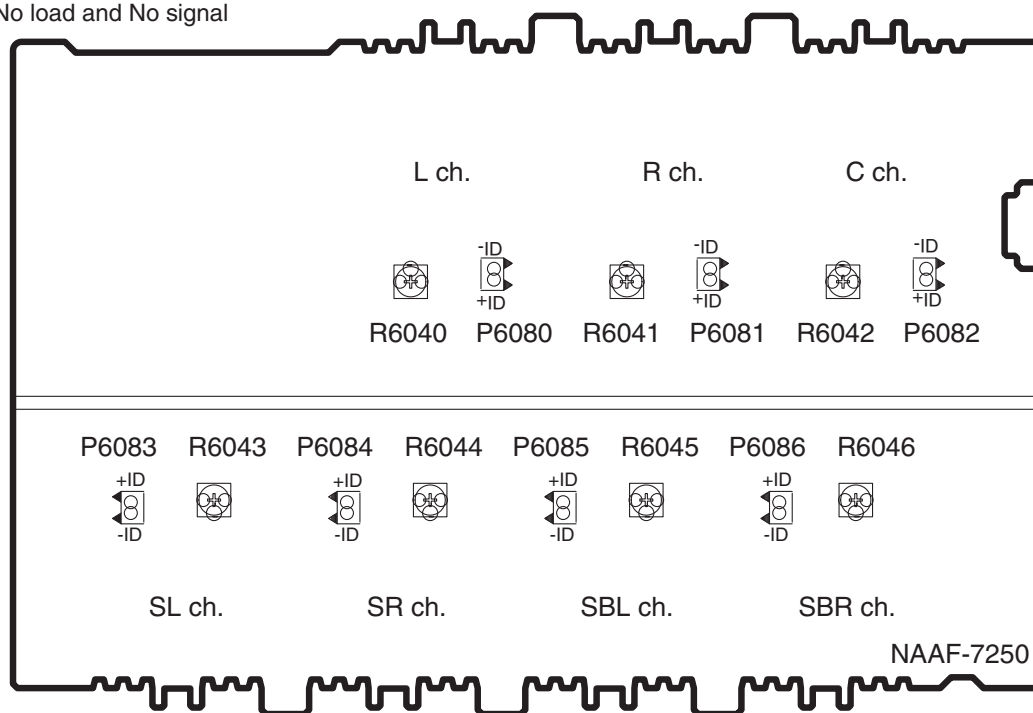
### Surround and surround back channels

When less than 6.0 mV, readjust the resistors above so that the voltage becomes 6.0 mV.

When 6.0 mV to 8.0 mV, you are not necessary to adjust.

When more than 8.0 mV, readjust the resistors above so that the voltage becomes 8.0 mV.

Note: No load and No signal



### Confirmation of protection circuit

#### 1. Confirmation of operation of speaker relay

Confirm that the speaker relays turn ON approximate. 5 seconds after the power switch is turned ON.

Confirm that the speaker relays turn OFF immediately after the power switch is turned OFF.

#### 2. Confirmation of DC detection circuit

Press and hold down CD button, then press STANDBY/ON and DISPLAY buttons to set the unit to "TEST-1" mode.

After "TEST-1" on the FL tube light on, press VIDEO 1 button to set the unit to "TEST-1-00".

Apply DC 1.5 to 3V to MULTI CHANNEL INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Apply DC -1.5 to -3V to MULTI CHANNEL INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Caution: Don't apply DC voltage more than 1 sec..

## ADJUSTMENT AND CONFIRMATION PROCEDURES

### 3. Confirmation of Current detection circuit

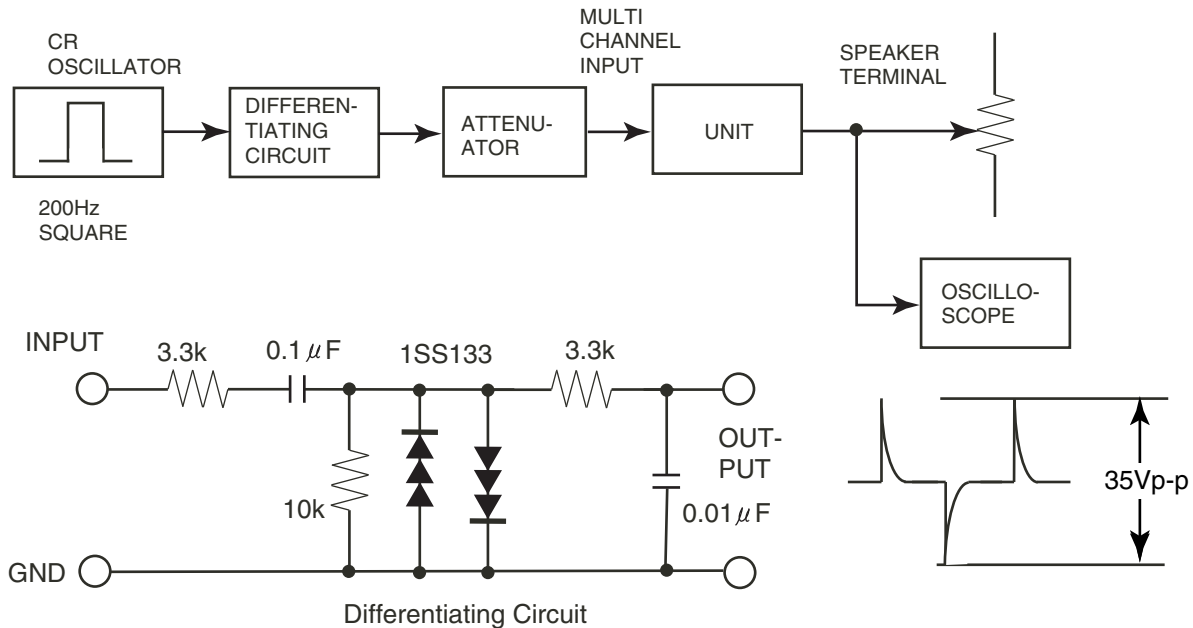
Set the unit to "TEST-1-00".

Connect the differentiating circuit and apply the 200Hz square signal to MULTI CHANNEL INPUT terminal of each channel.

Adjust the attenuator or Volume so that the output level becomes 35V p-p.

Confirm that the speaker relay does not turn OFF when a 3.0 ohm load is connected.

Confirm that the speaker relay turns OFF when a 1.5 ohm load is connected.



### Confirmation of fan

Set the unit to "TEST-1-00".

Apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.

Confirm that the fan rotates slow speed after few seconds.

Connect the 1.2 kohm/1W resistor between terminals COM and TH-1 of P6401 with no input signal.

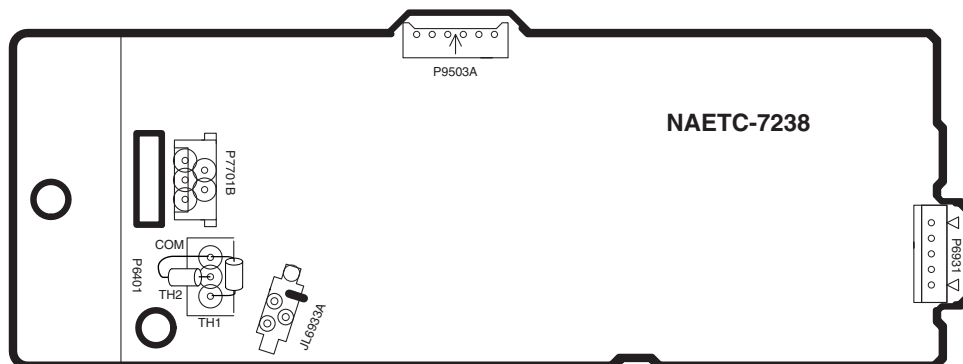
Confirm that the fan rotates slow speed after few seconds.

Next apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.

Confirm that the fan rotates high speed after few seconds.

Connect the 1.2 kohm/1W resistors between terminals COM-TH-1 and COM-TH-2 of P6401 respectively with no input signal.

Confirm that the fan rotates high speed after few seconds.



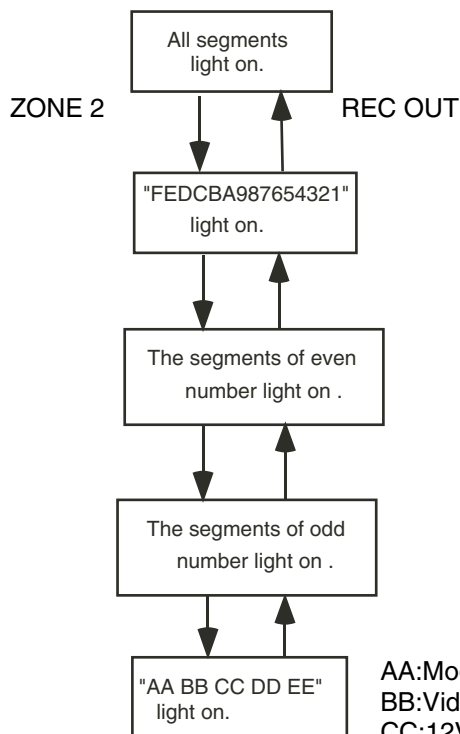
## ADJUSTMENT AND CONFIRMATION PROCEDURES 3

### Test Mode

1. Turn POWER button on.
2. Press and hold down CD button, then press DISPLAY and STANDBY/ON buttons.
3. After "TEST-1" on the FL tube is displayed, press CD button to set the unit to the test mode of FL tube.

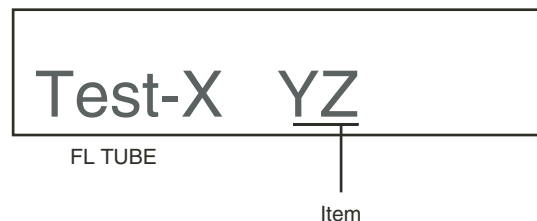
Note: VIDEO 1:TEST-1 VIDEO 2 :TEST-2 ZONE2: UP  
VIDEO 3 :TEST-3 VIDEO 4:TEST-4 REC OUT: DOWN

### Test mode of FL tube



AA:Model "89":TX-DS898 "79":TX-DS797  
 BB:Video Mode "NS": NTSC "PL": PAL AUTO  
 CC:12V TRIGGER "TR": Available " ":No available  
 DD:RDS "RD": Available " ":No available  
 EE:Tuner band EU:Europe US: USA SA:Worldwide JP:Japan

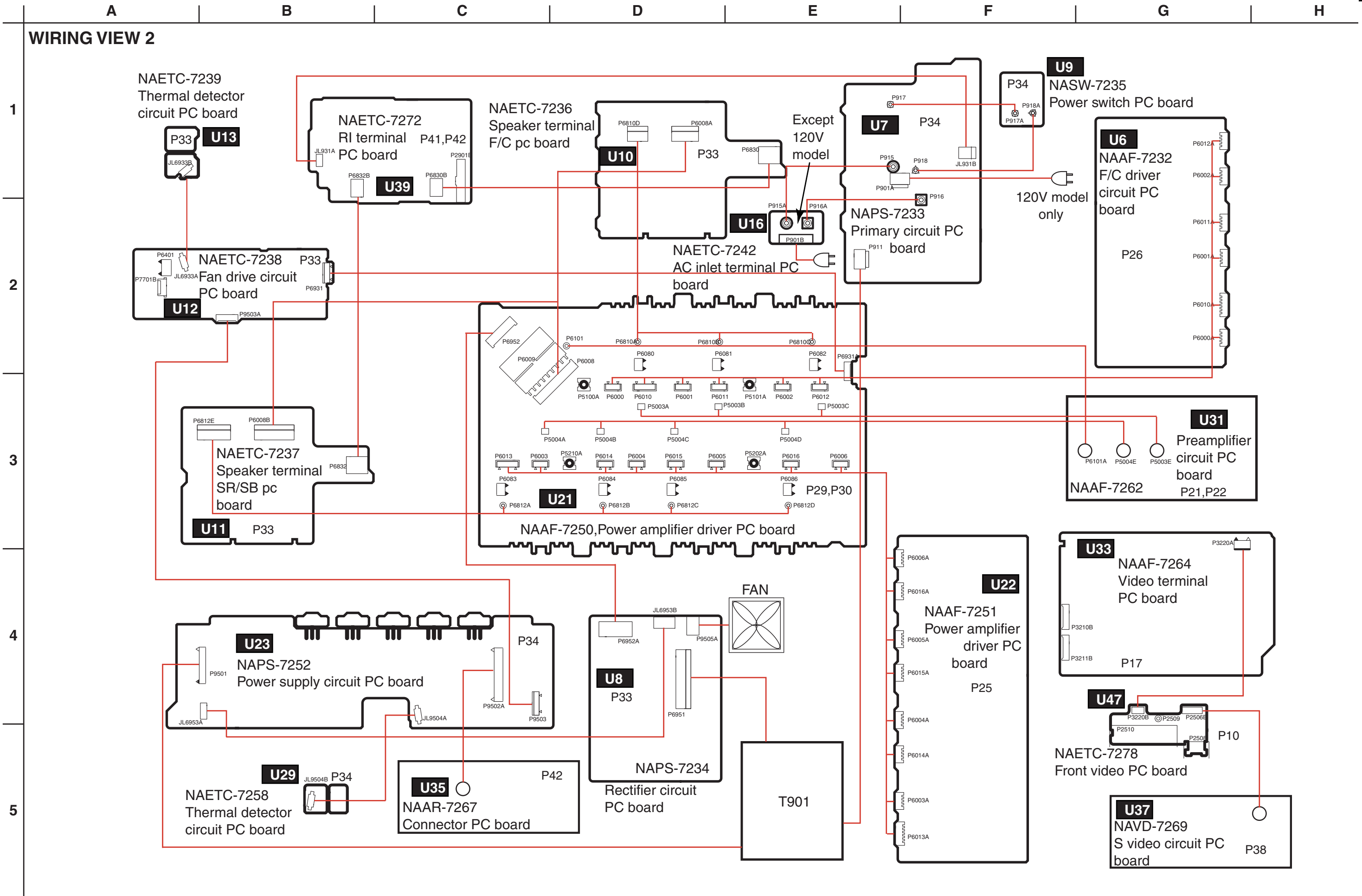
Press POWER button  
to finish the test mode of FL tube.



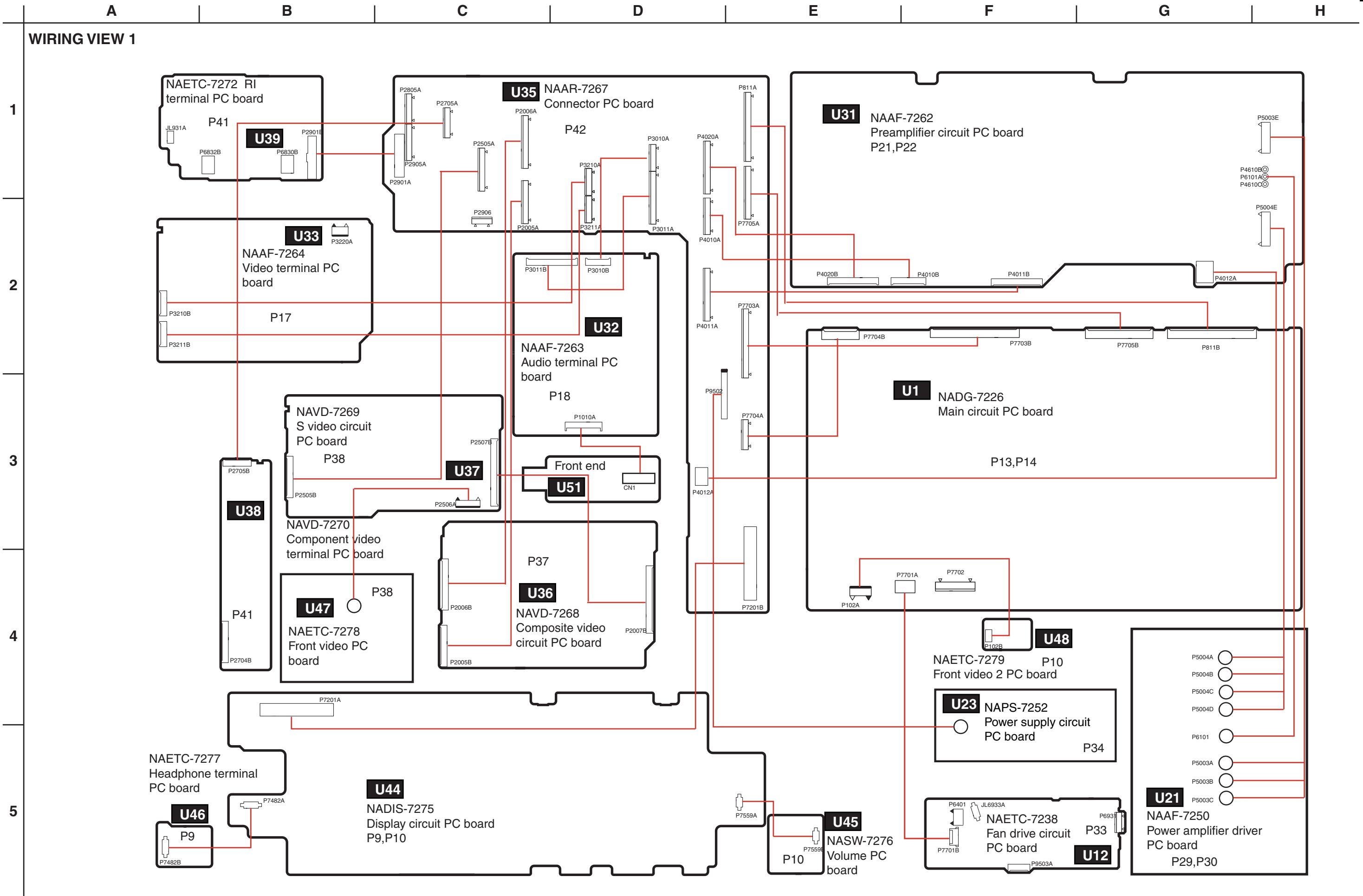
### Confirmation of voltage sensor

1. Set the unit to TEST-3-4.
2. Apply the signal 1kHz, -15dBV to the MULTI-CH input. Confirm that the FM STEREO is displayed. Confirm the all channels except SUBWOFFER.
3. When connect the resistor 1.2 kohm/1 W between the terminals COM and TH1 of P6401, confirm that "MEMORY" light on.  
Note: No input signal.
4. When change set the unit to "TEST-4-39, confirm that the speaker relays of RL6901 and RL6902 turn off.  
Note: No input signal.

WIRING VIEW 2



WIRING VIEW 1



# SCHEMATIC DIAGRAM 1

## Display section

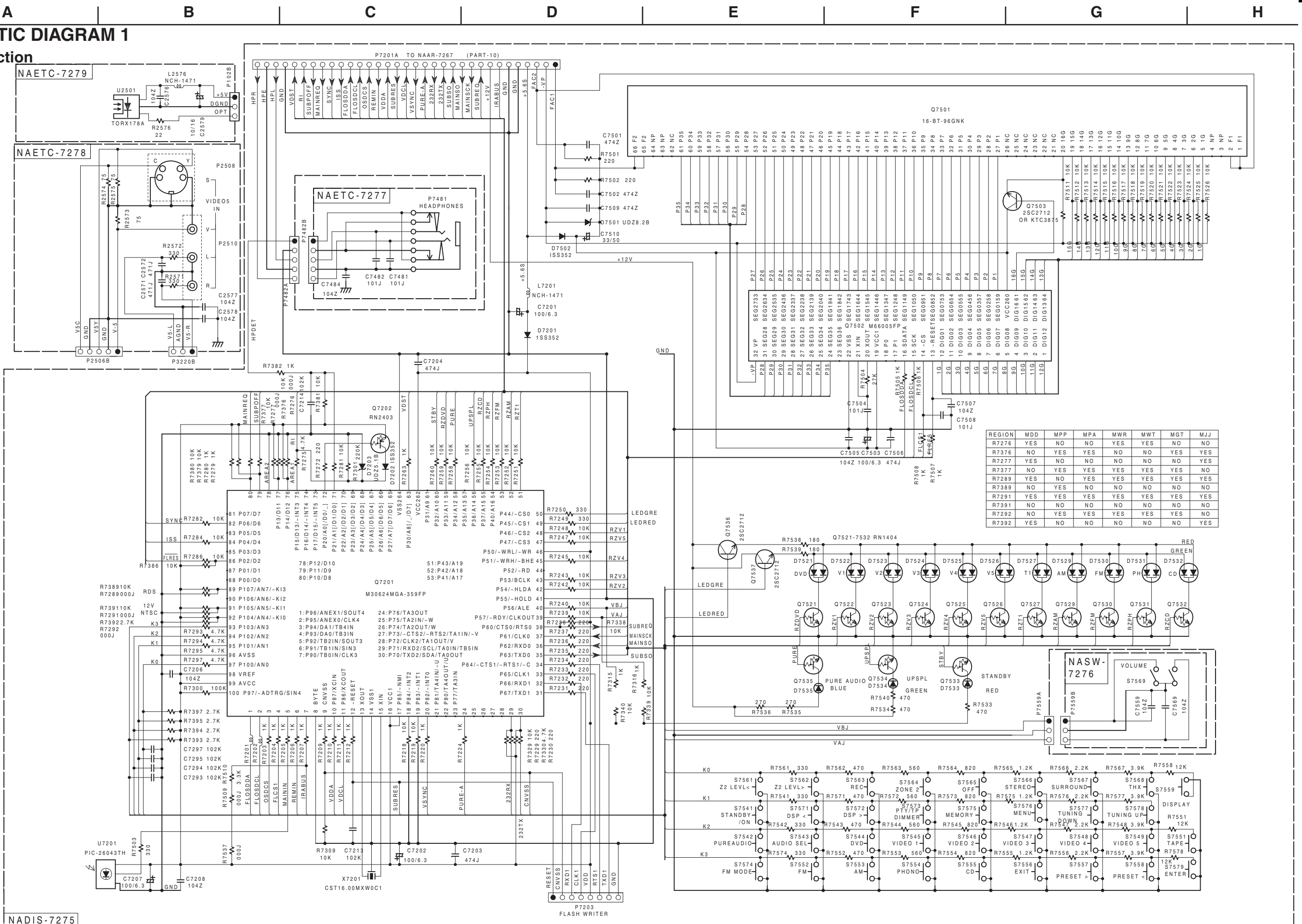
1

2

3

4

5



NADIS-7275



# SCHEMATIC DIAGRAM 2 DSP & Main microprocessor sections

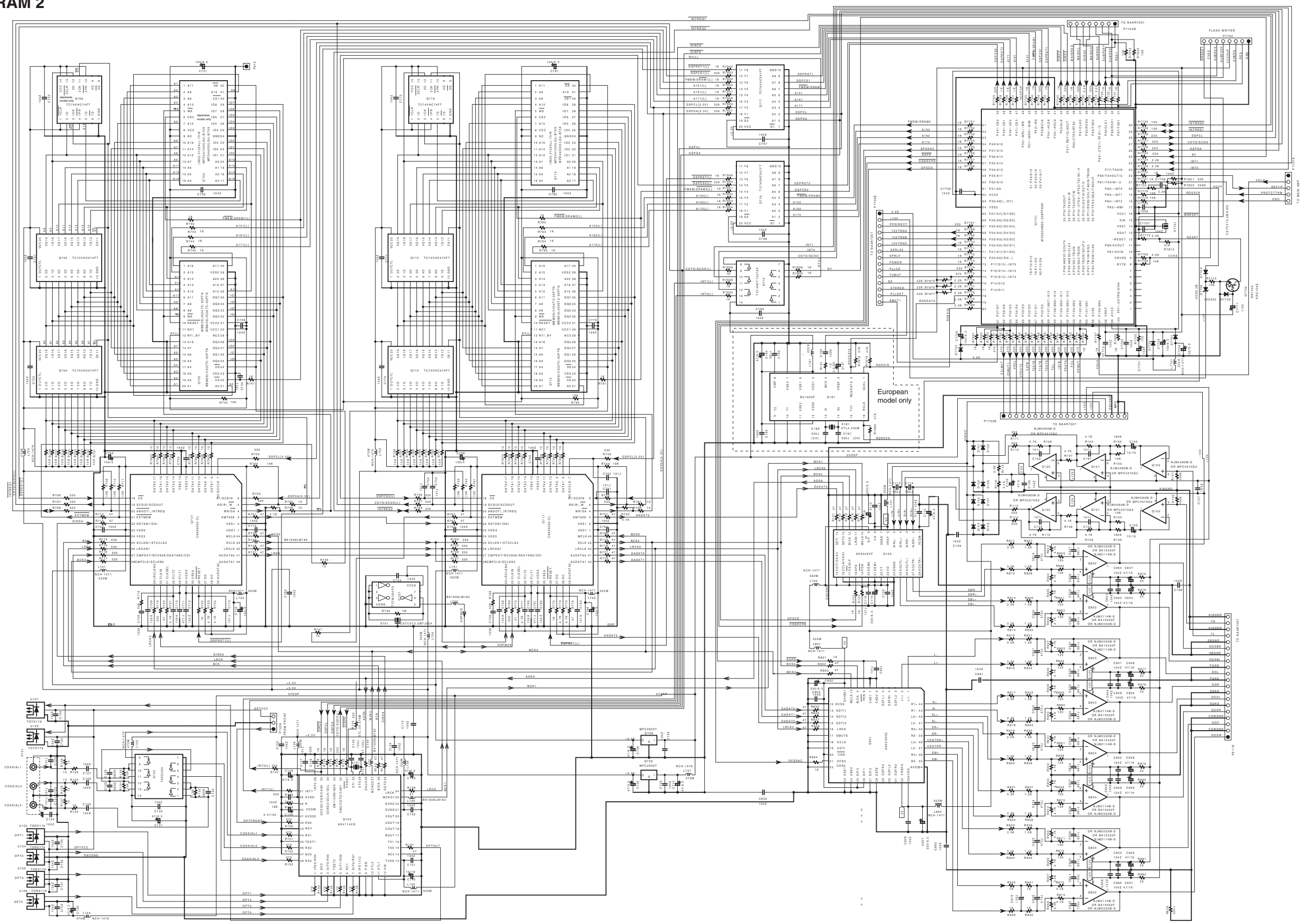
1

2

3

4

5



# SCHEMATIC DIAGRAM 3 AUDIO I/O SECTION

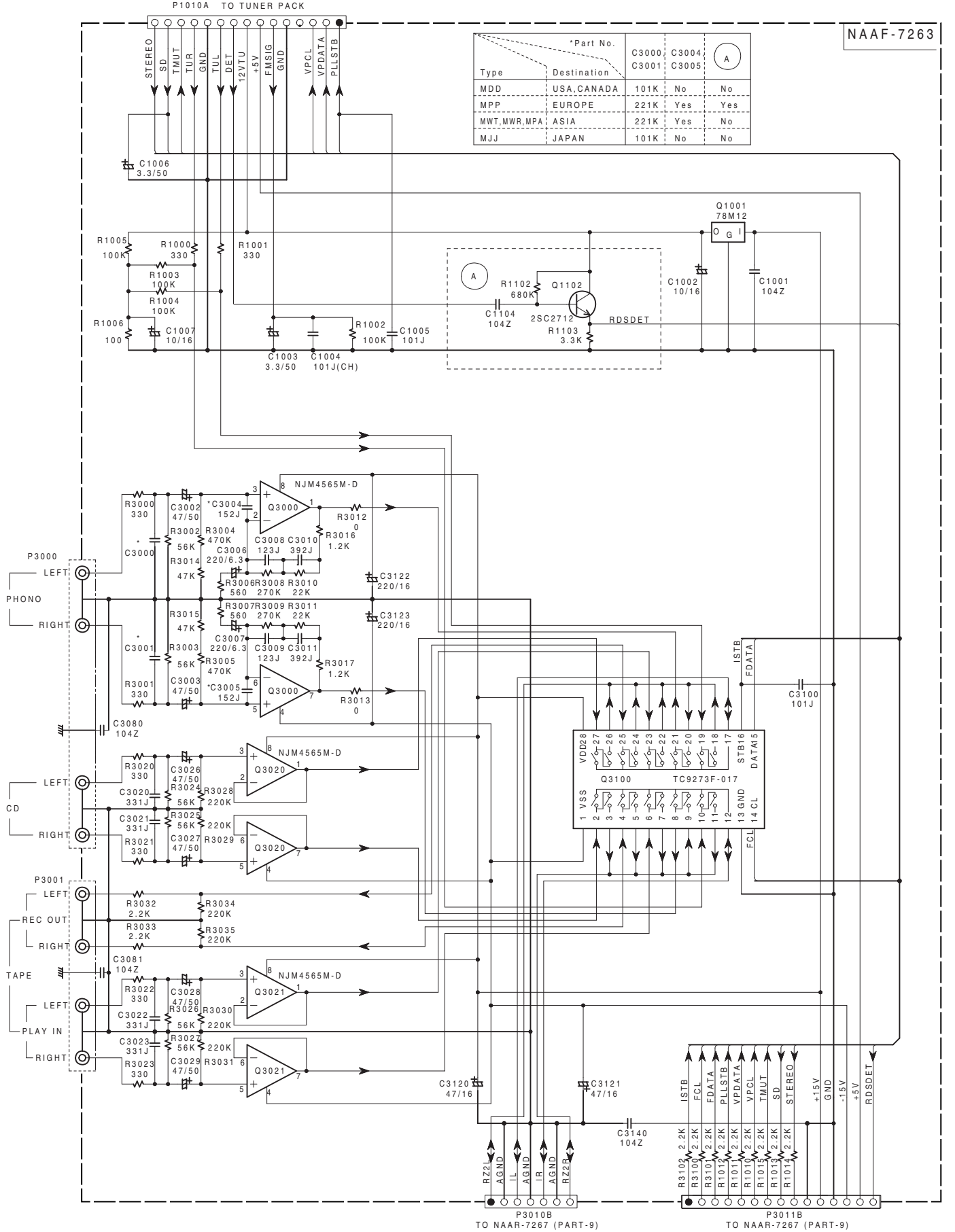
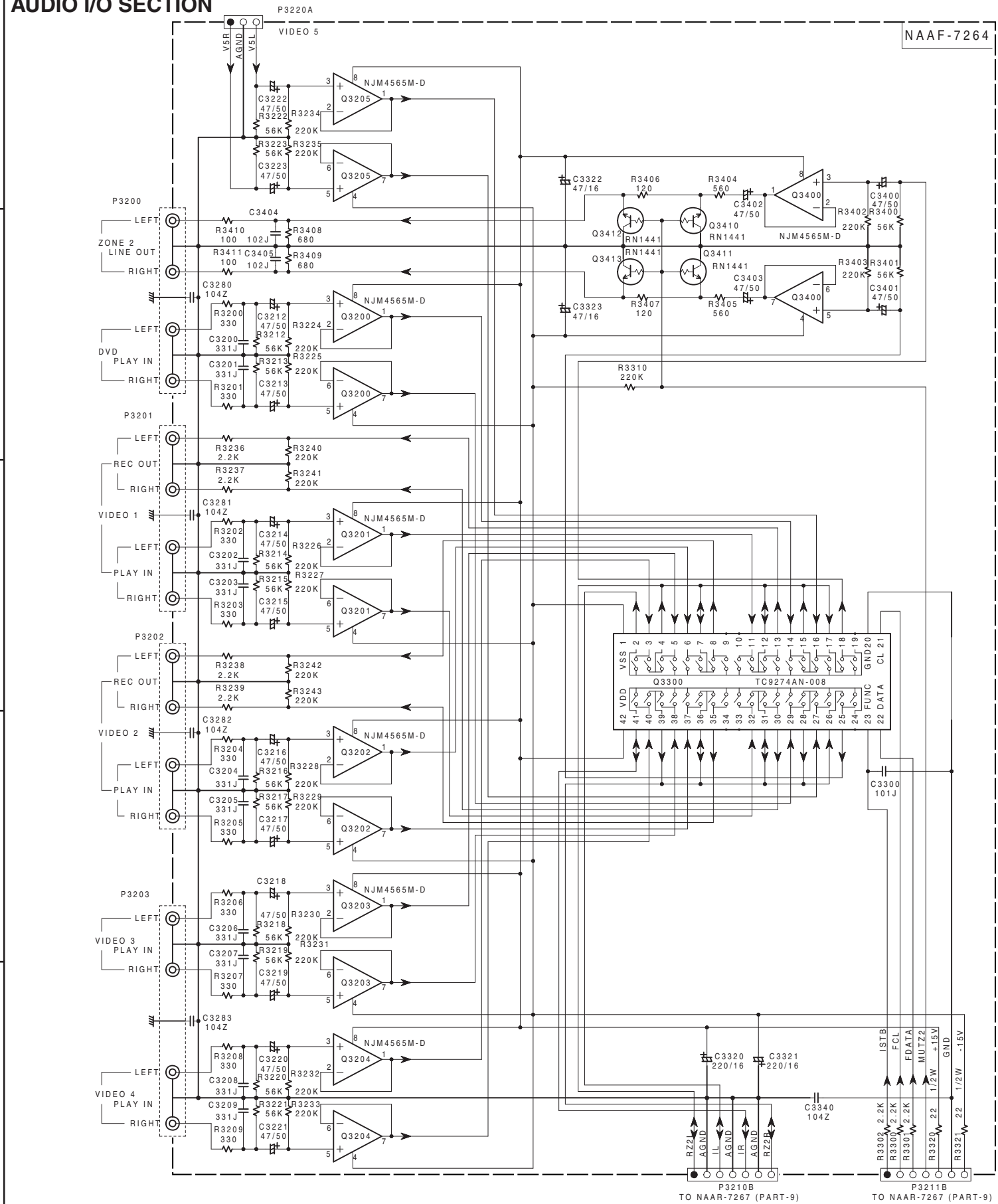
1

2

3

4

5



# SCHEMATIC DIAGRAM 4

## Preamp. section

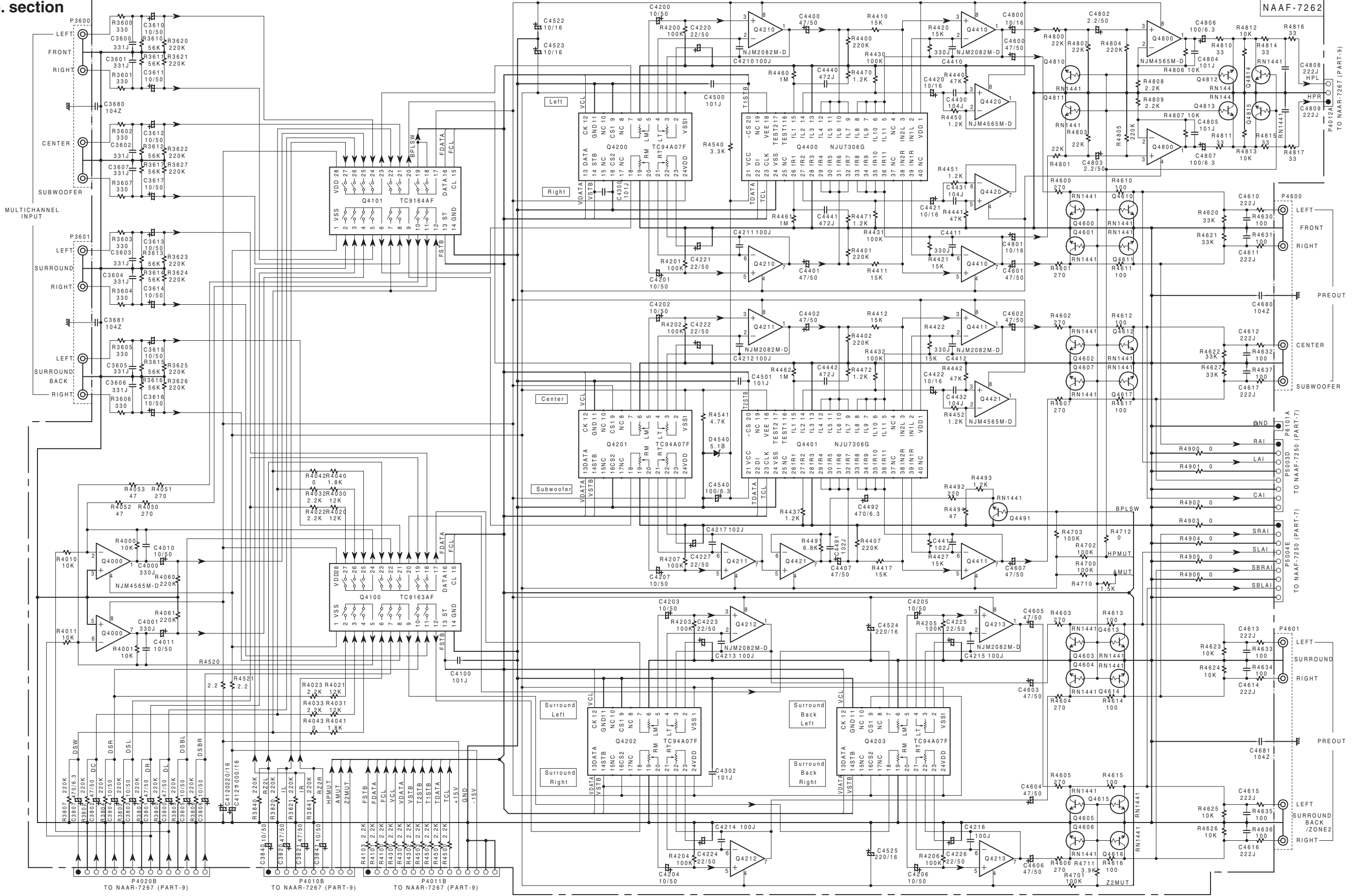
1

2

3

4

5



TO NAAR-7267 (PART-9)

TO NAAR-7267 (PART-9)

TO NAAR-7267 (PART-9)

TO NAAR-7267 (PART-9)

TO NAAR-7250 (PART-7)

TO NAAR-7250 (PART-7)

TO NAAR-7250 (PART-7)

**SCHEMATIC DIAGRAM 5**  
**Power amp.section**

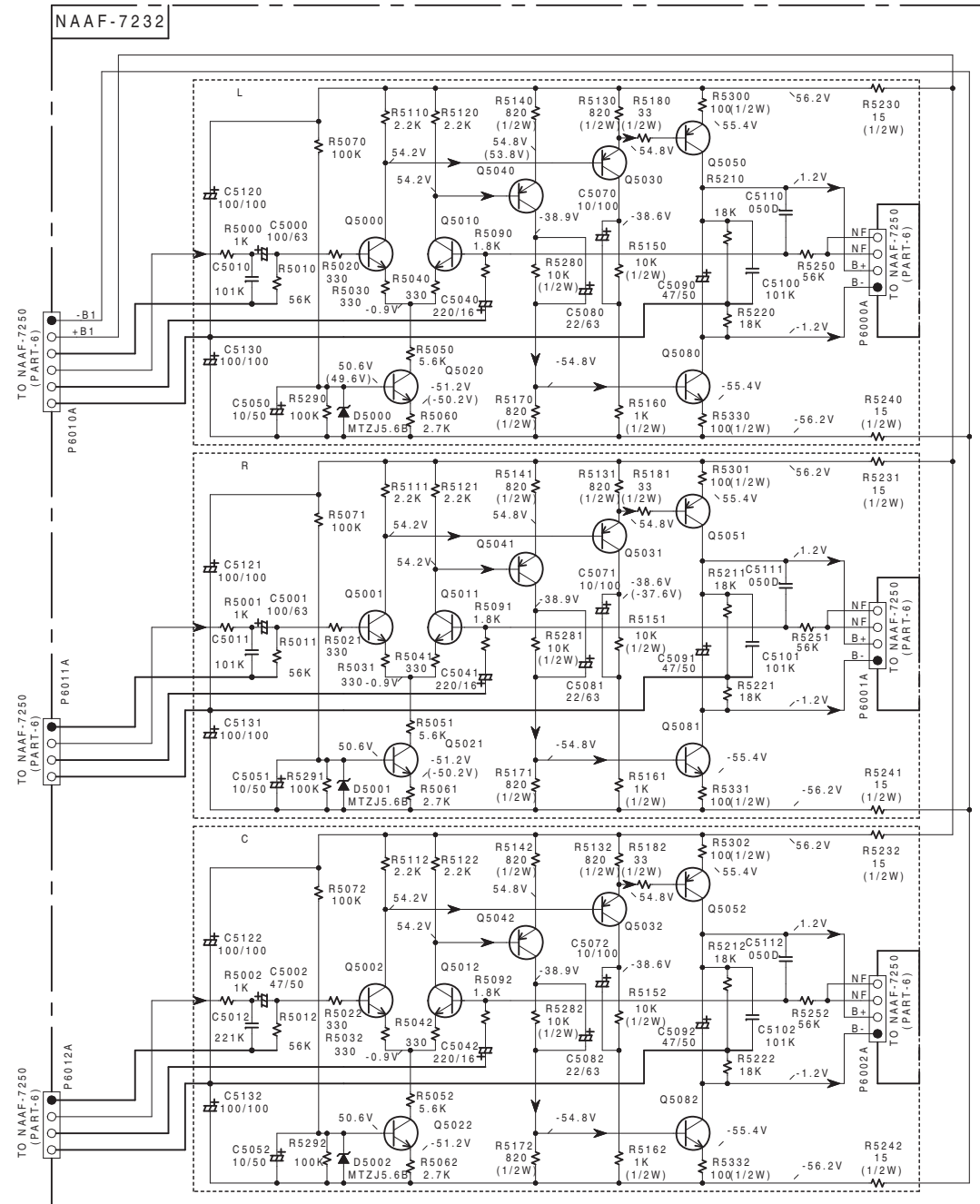
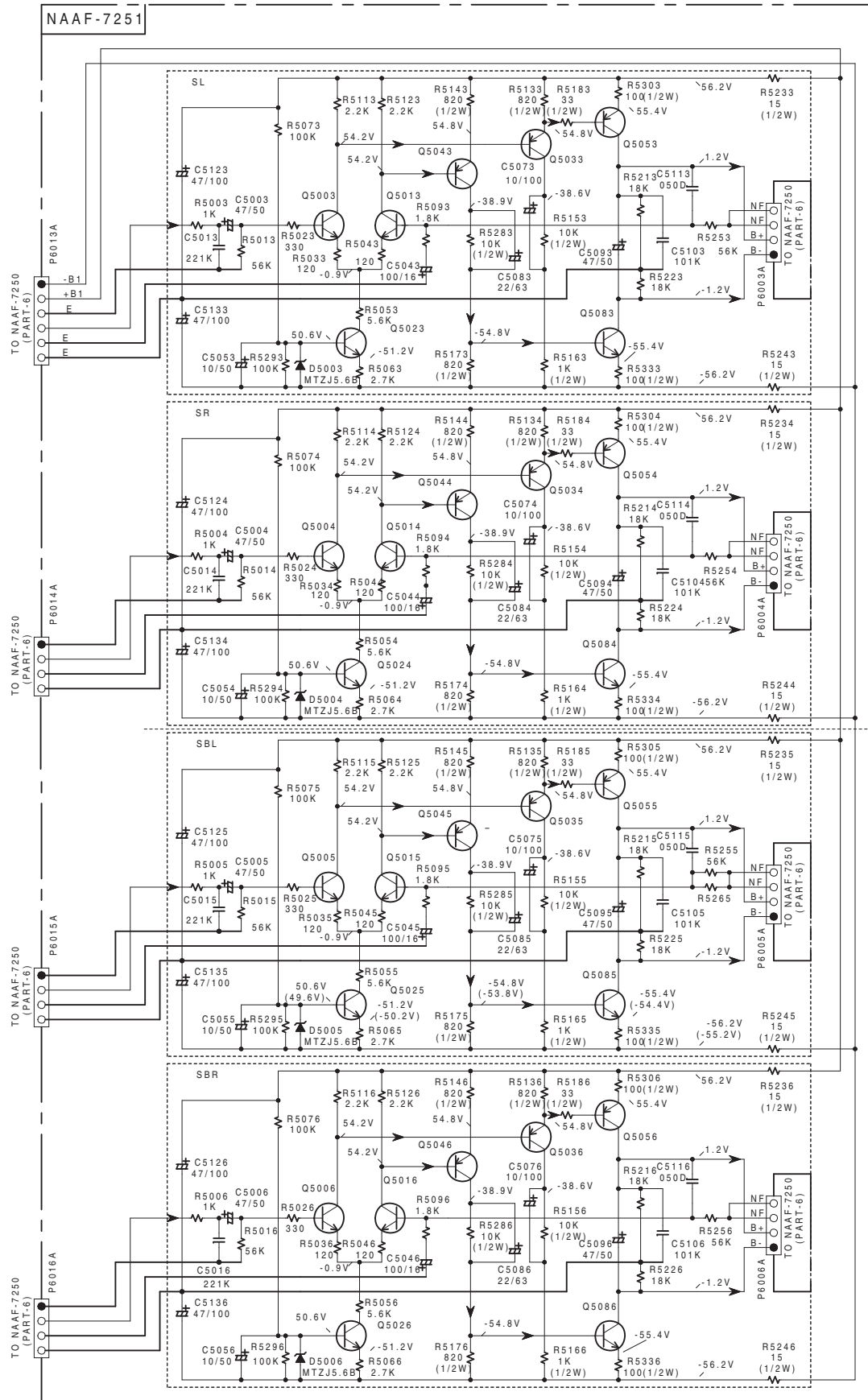
1

2

3

4

5



**SEMICONDUCTORS**

NO.	
Q5000-06, 5010-16	KTC3200-BL OR 2SC1775A-E,F OR 2SC1845-E
Q5020-26	KTC3200-BL OR 2SC1775A-E,F OR 2SC1845-E
Q5030-36, 5040-46, 5050-56, 5070-76	KTA1024-Y,O OR 2SA949-Y,O
Q5060-66, 5080-86	KTC3206-Y,O OR 2SC2229-Y,O

**SCHEMATIC DIAGRAM 6**  
Power amplifier section 2

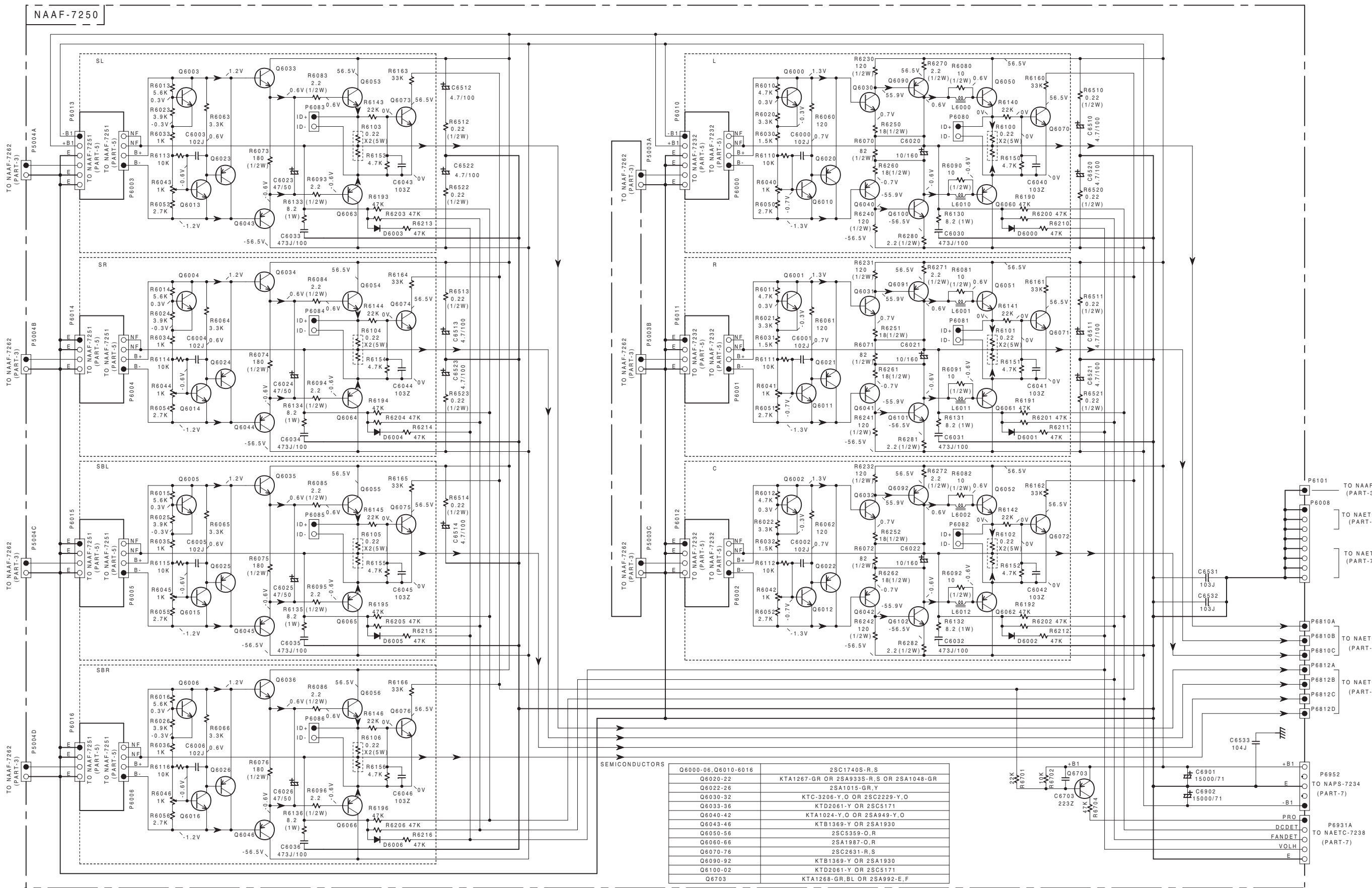
1

2

3

4

5

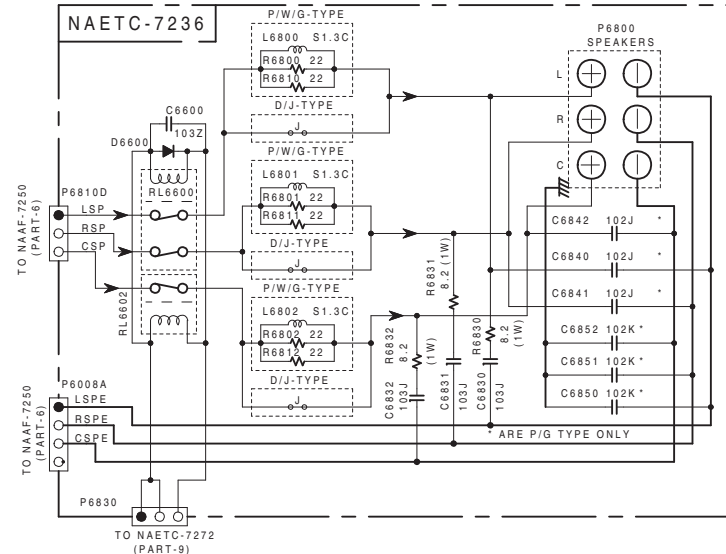


SEMICONDUCTORS

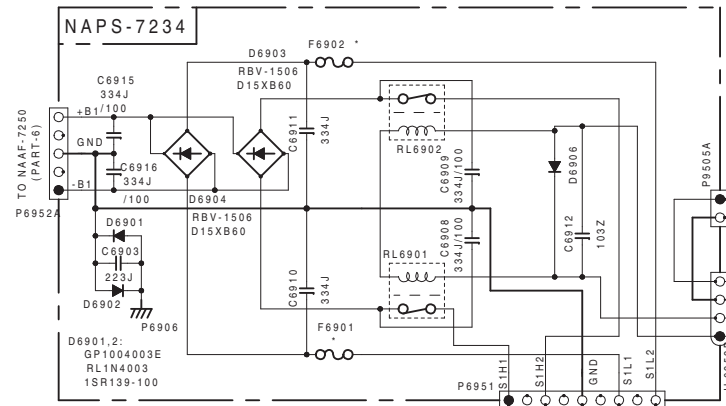
Q6000-06, Q6010-6018	2SC1740S-R,S
Q6020-22	KTA1267-GR OR 2SA933S-R,S OR 2SA1048-GR
Q6022-26	2SA1015-GR,Y
Q6030-32	KTC-3206-Y,O OR 2SC2229-Y,O
Q6033-36	KTD2061-Y OR 2SC5171
Q6040-42	KTA1024-Y,O OR 2SA949-Y,O
Q6043-46	KTB1369-Y OR 2SA1930
Q6050-56	2SC5359-O,R
Q6060-66	2SA1987-O,R
Q6070-76	2SC2631-R,S
Q6090-92	KTB1369-Y OR 2SA1930
Q6100-02	KTD2061-Y OR 2SC5171
Q6703	KTA1268-GR,BL OR 2SA992-E,F

# SCHEMATIC DIAGRAM 7 Power supply, Fan control & Speaker terminal sections

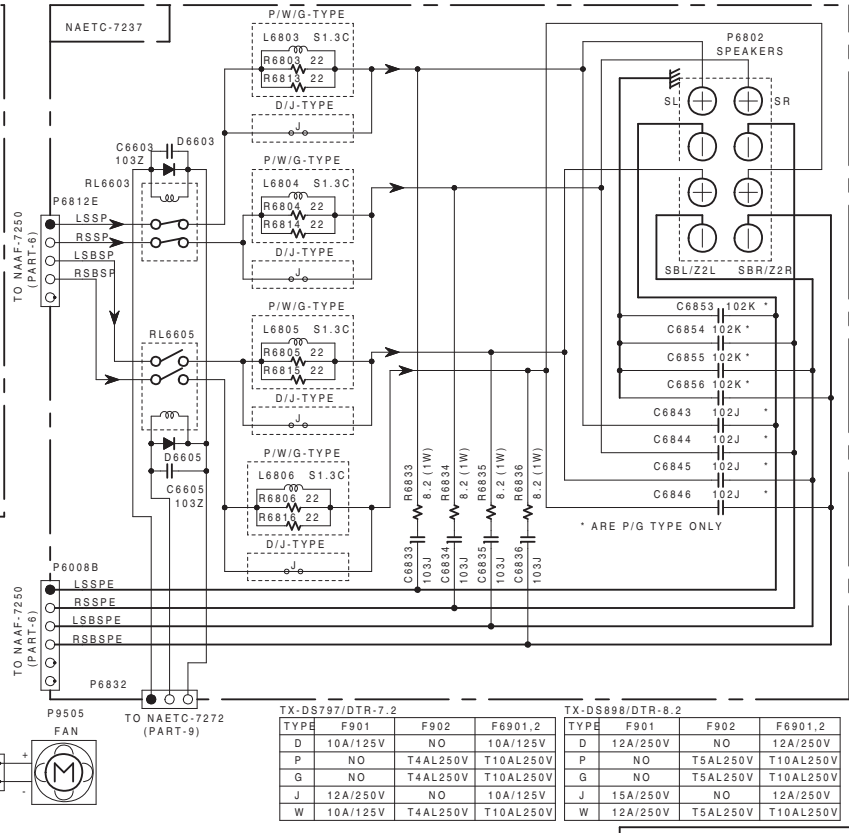
1



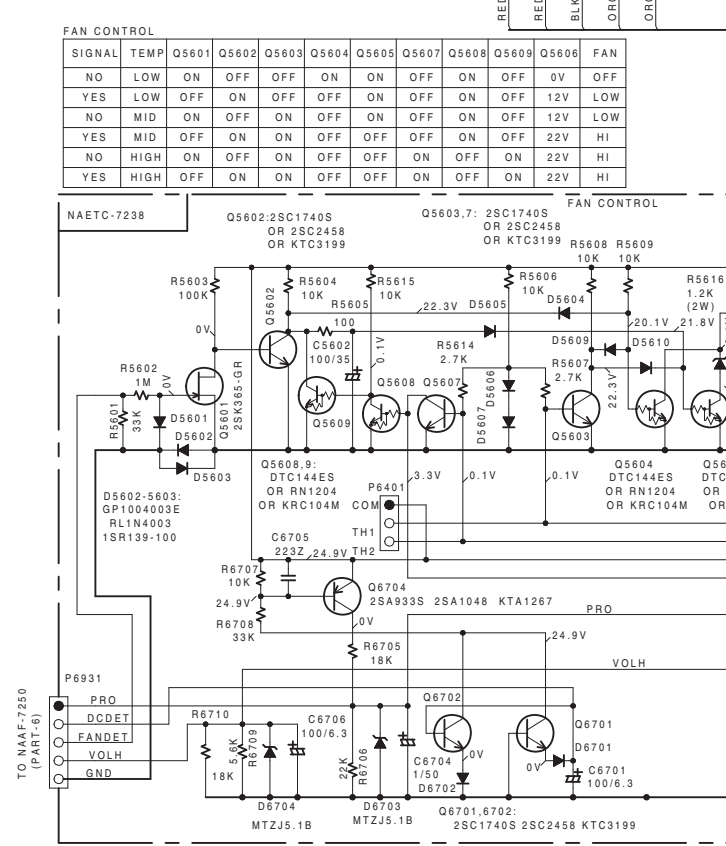
2



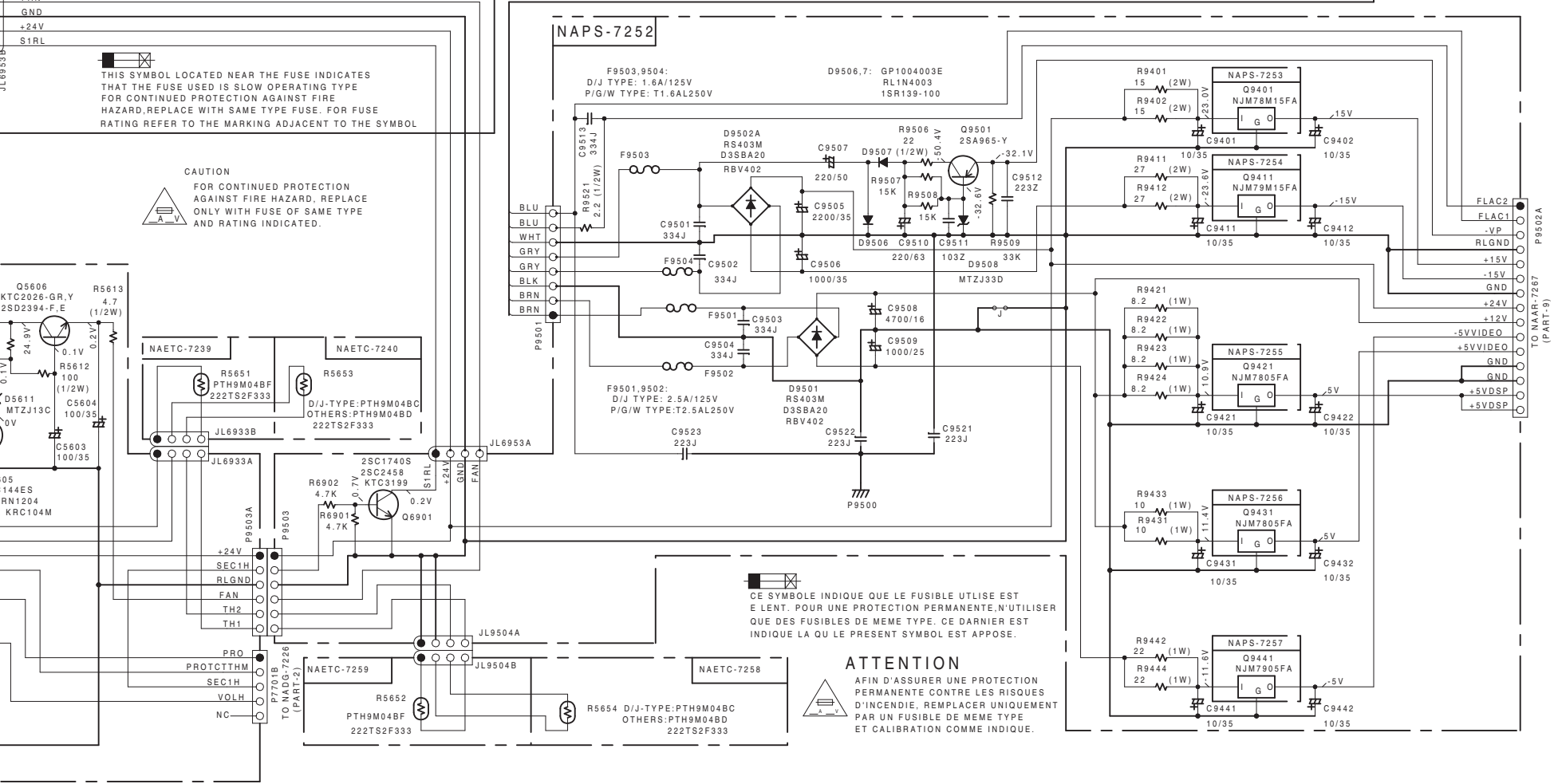
3



4



5



TX-DS898/DTR-8.2

TYPE	T901	T902
D	NPT-1420D	NPT-1111D
P	NPT-1420P	NPT-1111P
G	NPT-1420G	NPT-1111G
J	NPT-1420J	NPT-1111J
W	NPT-1420W	NPT-1111W

TX-DS797/DTR-7.2

TYPE	T901	T902
D	NPT-1421D	NPT-1111D
P	NPT-1421P	NPT-1111P
G	NPT-1421G	NPT-1111G
J	NPT-1421J	NPT-1111J
W	NPT-1421W	NPT-1111W

THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MARKING ADJACENT TO THE SYMBOL

CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST E LENT. POUR UNE PROTECTION PERMANENTE, N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DERNIER EST INDIQUE LA OU LE PRESENT SYMBOLE EST APPOSE.

**ATTENTION**  
AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.

# SCHEMATIC DIAGRAM 8

## Video section

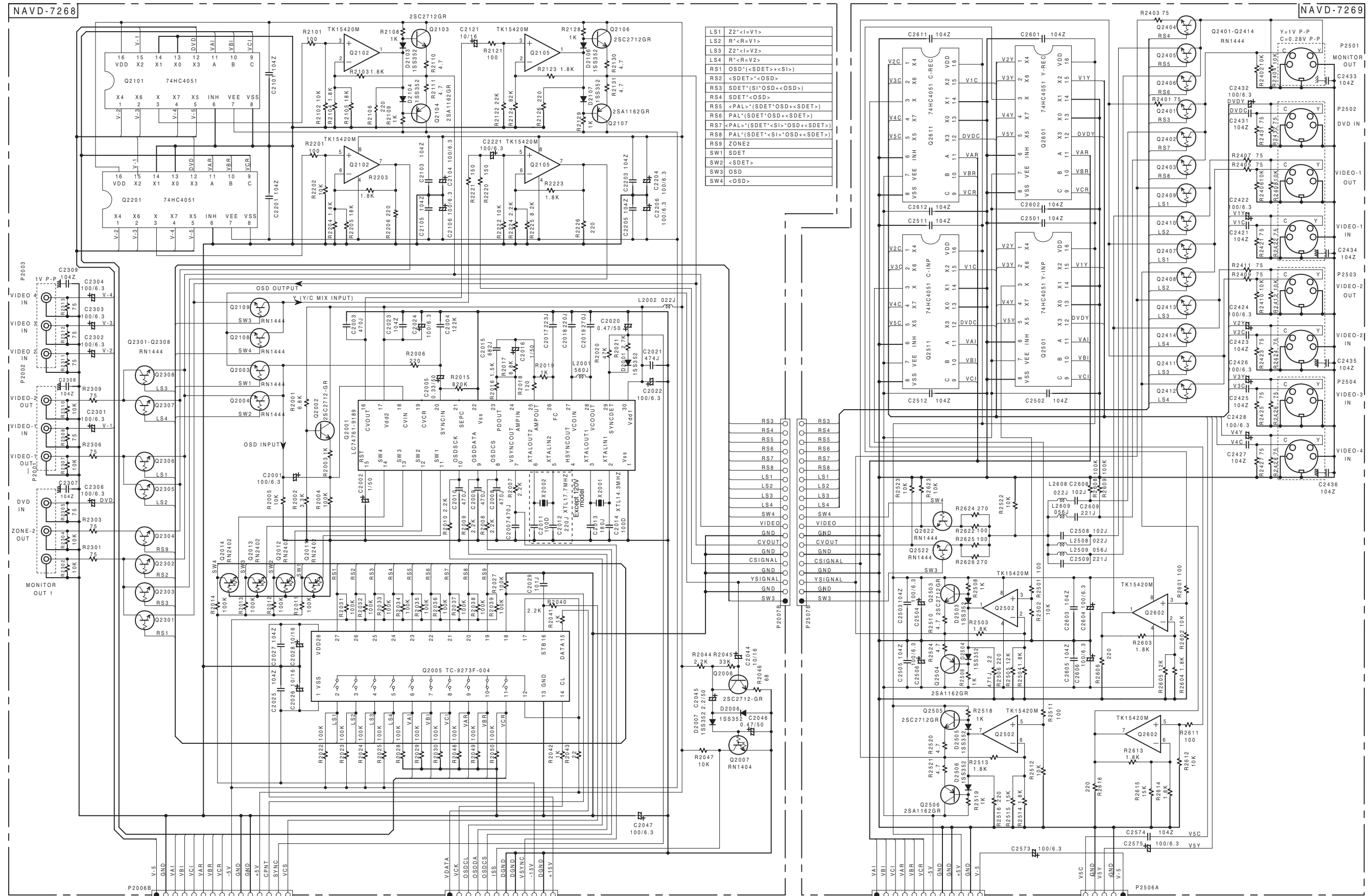
1

2

3

4

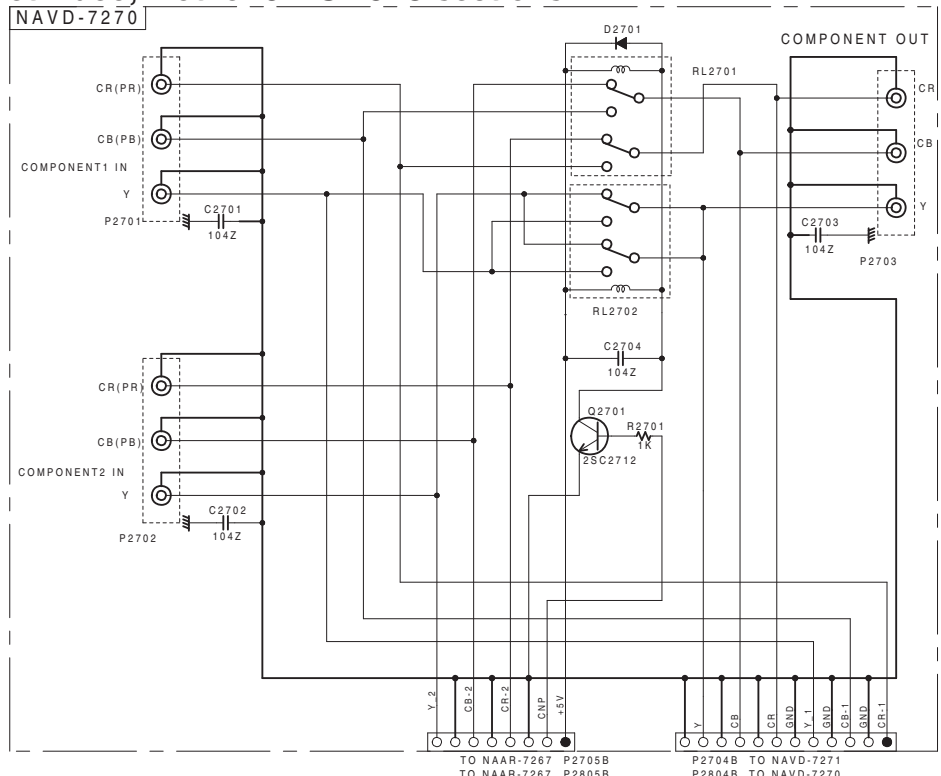
5



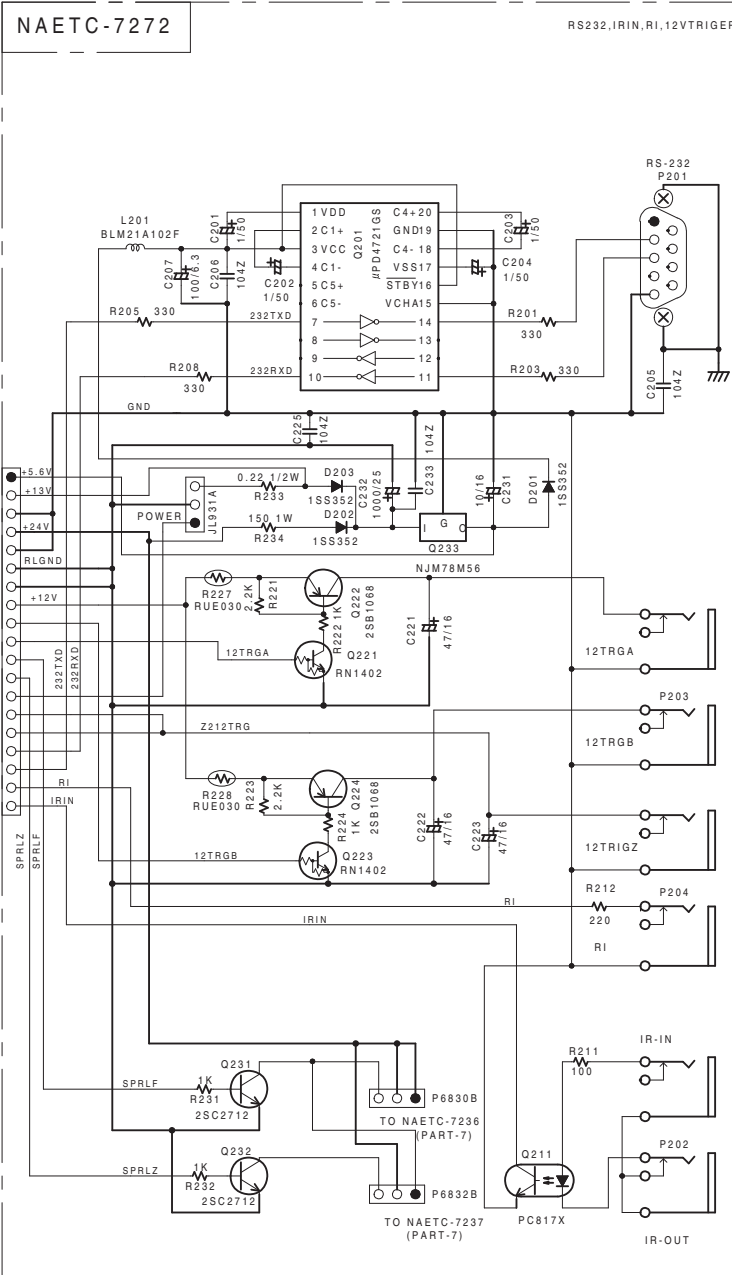
# SCHEMATIC DIAGRAM 9

## Componet video, mother & RS-232C sections

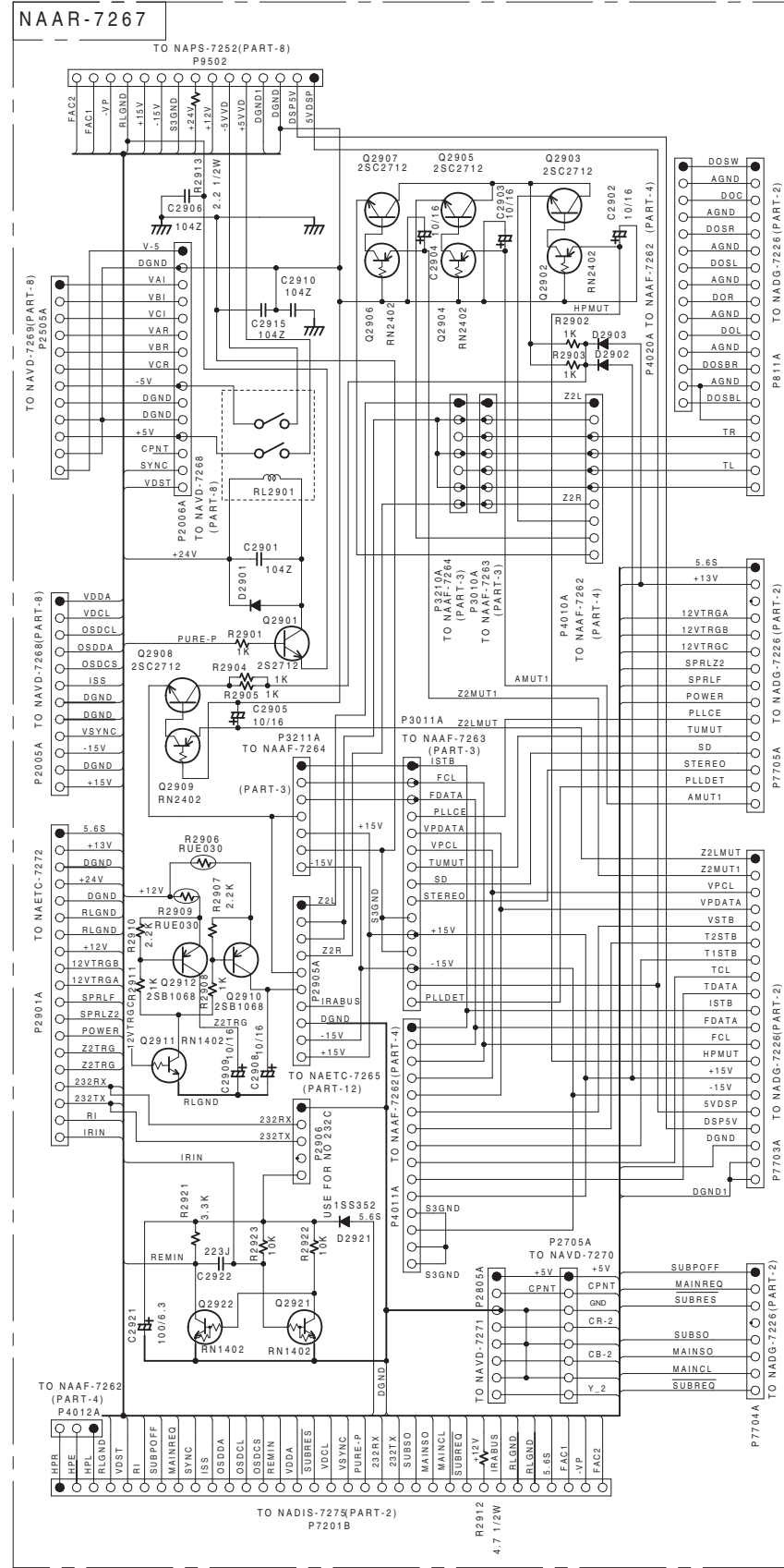
1



2



3



4

5



## PRINTED CIRCUIT BOARD-PARTS LIST 1

NOTE: <D>:120V model only <R> Chinese model only  
 <P>:European model only <A>: Australian model only  
 <WT>:Worldwide model only <O>: All models except 120V model  
 <GT> 220V model only

## MAIN CIRCUIT PC BOARD (NADG-7226-1A/1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q100-Q102	22241448R2	NJM4580M-D
Q103	22241522R2	AK4528VF
Q104	22241633R3	AK4114VQ
Q105	222740046R2TO	TC74HCU04F
Q181	22241297R2	BU1923F <P>
Q701	22241731R9	CS493002-CL(PL2/ES/NEO)
Q702,Q712	22241458R3, 22241457R3 or 22241530R3	MBM29LV002TC-90PTN, MBM29LV004TC-90PTN or MBM29LV008TA-90PTN
Q704,Q705	22274574ER2TO	TC74VHC574FT
Q707	22240935R2	TC7WU04FU
Q708	22278025DR2NE	MPC2925T
Q709	22278033DR2NE	MPC2933T
Q711	22241456R9	CS493002-CL
Q713	22241517R3, 22241459R3 or 22241742R2	MPD441000LGU-B70X, MPD442000LGU-B70X or IS62LV1024LL-70H
Q714,Q715	22274574ER2TO	TC74VHC574FT
Q716	22274074ER2TO	TC74VHC74FT
Q717,Q718	22274541ER2TO	TC74VHC541FT
Q719	222740077R2TO	TC74HCT7007AF
Q7701	22241681R3 or 22241512	M30624MGA-358FP or M30624FGAFP
Q801	22241521R3	AK4356VQ
Q802-Q805	22241449R2, 22241409R2 or 22241472R2	NJM5532M-D, BA15532F or NJM2114M-D
Q7702		<b>Transistor</b> 2216210R2 or 2214490R2
U101,U102	24120094	TOTX179
U103-U106	24120095	TORX179
D101-D108	223234R2 or	1SS352 or
D7701-D7705	223269R2	1SS355
D7706	224490620R2 or 224550620R2	UDZ6,2B or UDZS6,2B
X101	3010331R2	HC-49/U03C24,576MHz,Crystal
X181	3010203 or 3010345	AF6146CG or HQS-3H2-04332-20 <P>
X701	3010324R2	CSTCV12,2MTJ0C4,Ceramic
X7701	3010329R2	CSTCV16,00MXJ0C,Ceramic
L101,L102	231237M022R2	NCH-1471
L103,L104	231237K470R2	NCH-1479
L105	231237M022R2	NCH-1471
L106,L107	230958R1	BK1608LM182-T
L108,L109	231237M022R2	NCH-1471
L181	231237K220R2	NCH-1477 <P>
L701,L702	231237M022R2	NCH-1471
L703,L707	231237K470R2	NCH-1479
L704	231237M022R2	NCH-1471
L705	230958R1	BK1608LM182-T
L751,L752	231237M022R2	NCH-1471
L753	231237K470R2	NCH-1479
L7701	231237K220R2	NCH-1477
L801,L802	231237M022R2	NCH-1471
C105	3567A4709R2	47uF,4V,Elect.
C110	356724709R2	47uF,6,3V,Elect.
C116,C119	356723319R2	330uF,6,3V,Elect.
C131,C139	356724709R2	47uF,6,3V,Elect.
C140	356741009R2	10uF,16V,Elect.
C143,C148	356724709R2	47uF,6,3V,Elect.
C150	356784799R2	0,47uF,50V,Elect.
C152,C153	356741009R2	10uF,16V,Elect.
C181	356780229R2	2,2uF,50V,Elect. <P>
C184	356724709R2	47uF,6,3V,Elect. <P>

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>Capacitors</b>
C706,C716	3567A1019R2	100uF,4V,Elect.
C715	356724709R2	47uF,6,3V,Elect.
C731	356721019R2	100uF,6,3V,Elect.
C735,C736	356724709R2	47uF,6,3V,Elect.
C756,C766	3567A1019R2	100uF,4V,Elect.
C7701	3000078	DX-5R5L104,Super for memory
C7703-C7705	356721019R2	100uF,6,3V,Elect.
C7711	356780109R2	1uF,50V,Elect.
C781	356721019R2	100uF,6,3V,Elect.
C802,C807	356723319R2	330uF,6,3V,Elect.
C847-C850	356744709R2	47uF,16V,Elect.
C854-C857	356744709R2	47uF,16V,Elect.
		<b>Terminal</b>
P101	25045666	NPJ-3PDO465 <D>
	25045624	NPJ-3PDO431 <O>
		<b>Sockets</b>
P7701A	25052277R2	NSCT-5P2174
P7703B	25051241	NSCT-20P1031
P7704B	25051233	NSCT-8P1023
P7705B	25051240	NSCT-15P1030
P811B	25051241	NSCT-20P1031
		<b>Plug</b>
P102AA	25055133	NPLG-3P117
		<b>Cushion</b>
Q801A	28141445	(DAC)

## F/C DRIVER CIRCUIT PC BOARD (NAAF-7232-1A/1B/1C/1D/1E/1H)

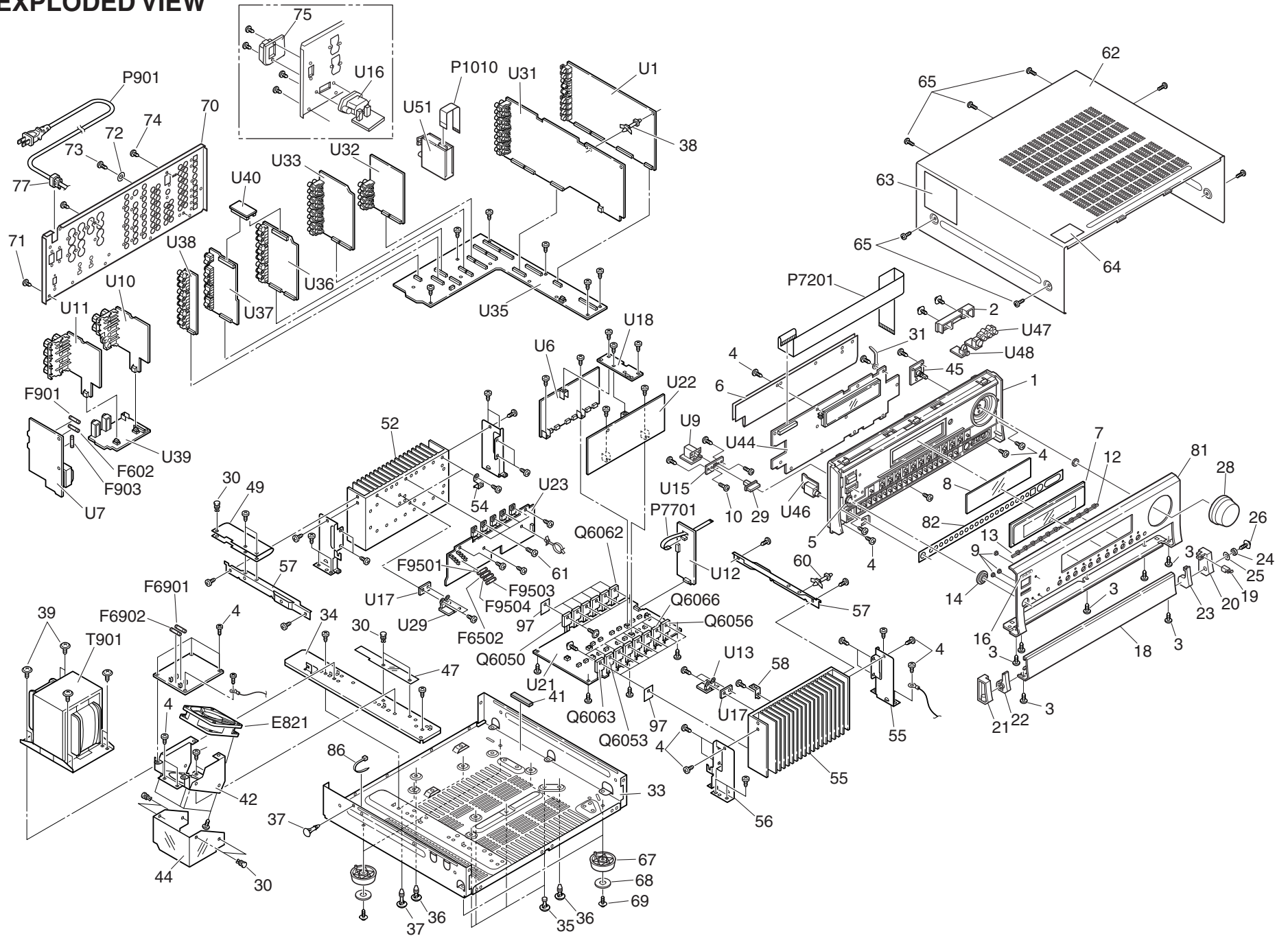
CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>Transistors</b>
Q5000-Q5002	2215896,	KTC3200-BL,
Q5010-Q5012	2210755,	2SC1775A-E,
Q5020-Q5022	2210756 or 2211733	2SC1775A-F or 2SC1845-E
Q5030-Q5032	2215844,	KTA1024-Y,
Q5040-Q5042	2211353,	2SA949-O,
Q5050-Q5052	2211354 or 2215843	2SA949-Y or KTA1024-O
Q5080-Q5082	2215854, 2211633, 2211634 or 2215853	KTC3206-Y, 2SC2229-O, 2SC2229-Y or KTC3206-O
D5000-D5002	224470562	MTZJ5,6B
		<b>Capacitors</b>
C5000,C5001	393371017	100uF,63V,Elect.
C5002	393384707	47uF,50V,Elect.
C5010,C5011	374721015	100pF+/-10%,50V,Plastic
C5012	374722215	220pF+/-10%,50V,Plastic
C5040-C5042	393342217	220uF,16V,Elect.
C5050-C5052	354781009	10uF,50V,Elect.
C5070-C5072	354791009	10uF,100V,Elect.
C5080-C5082	354772209	22uF,63V,Elect.
C5090-C5092	354784709	47uF,50V,Elect.
C5100-C5102	374721015	100pF+/-10%,50V,Plastic
C5120-C5122	354791019	100uF,100V,Elect.
C5130-C5132	354791019	100uF,100V,Elect.
		<b>Resistors</b>
R5130-R5132	443528214	820ohm+/-5%,1/2W,Metal oxide
R5140-R5142	443528214	820ohm+/-5%,1/2W,Metal oxide
R5150-R5152	443521034	10kohm+/-5%,1/2W,Metal oxide
R5160-R5162	443521024	1kohm+/-5%,1/2W,Metal oxide
R5170-R5172	443528214	820ohm+/-5%,1/2W,Metal oxide
R5180-R5182	443523304	33ohm+/-5%,1/2W,Metal oxide
R5230-R5232	443521504	15ohm+/-5%,1/2W,Metal oxide
R5240-R5242	443521504	15ohm+/-5%,1/2W,Metal oxide
R5280-R5282	443521034	10kohm+/-5%,1/2W,Metal oxide
R5300-R5302	443521014	100ohm+/-5%,1/2W,Metal oxide
R5330-R5332	443521014	100ohm+/-5%,1/2W,Metal oxide
		<b>Terminals</b>
P5100,P5101	25060302	NTM-1P233(M1969)

## PRINTED CIRCUIT BOARD-PARTS LIST 5

NOTE: <D>:120V model only  
<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Resistors</b>			<b>Capacitors</b>	
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide	C4200-C4207	393381007	10uF,50V,Elect.
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide	C4217	374721024	1000pF+/-5%,50V,Plastic
R9421-R9424	441620824	8,2ohm+/-5%,1W,Metal oxide	C4220-C4227	393382207	22uF,50V,Elect.
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide	C4400-C4402	393384707	47uF,50V,Elect.
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide	C4407	393384707	47uF,50V,Elect.
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide	C4417	374721024	1000pF+/-5%,50V,Plastic
R9521	453530224	2,2ohm+/-5%,1/2W,Metal	C4420-C4422	354741009	10uF,16V,Elect.
	<b>Fuses</b>		C4430-C4432	374721044	0,1uF+/-5%,50V,Plastic
F9501,F9502	252160 or	2,5A-UL/T-237 or	C4440-C4442	374724724	4700pF+/-5%,50V,Plastic
	252254	2,5A-T/UL-ST2 <D>	C4491	374721024	1000pF+/-5%,50V,Plastic
	252075,	2,5A-SE-EAK,	C4492	354724719	470uF,6,3V,Elect.
	252241 or	2,5A-SE-TL250V or	C4522,C4523	354741009	10uF,16V,Elect.
	252275	2,5A-SE-TL250V <O>	C4524,C4525	354742219	220uF,16V,Elect.
F9503,F9504	252158 or	1,6A-UL/T-237 or	C4540	354721019	100uF,6,3V,Elect.
	252252	1,6A-T/UL-ST2 <D>	C4600-C4607	393384707	47uF,50V,Elect.
	252073,	1,6A-SE-EAK,	C4610-C4617	374722224	2200pF+/-5%,50V,Plastic
	252239 or	1,6A-SE-TL250V or	C4800,C4801	354741009	10uF,16V,Elect.
	252273	1,6A-SE-TL250V <O>	C4802,C4803	354780229	2,2uF,50V,Elect.
	<b>Fuse holders</b>		C4806,C4807	354721019	100uF,6,3V,Elect.
F9501A,F9501B	25052133	NSCT-1P2031	C4808,C4809	374722224	2200pF+/-5%,50V,Plastic
F9502A,F9502B	25052133	NSCT-1P2031		<b>Resistors</b>	
F9503A,F9503B	25052133	NSCT-1P2031	R4520,R4521	4500171F	2,2ohm+/-5%,1/4W,Metal oxide
F9504A,F9504B	25052133	NSCT-1P2031		<b>Terminals</b>	
	<b>Fuse labels</b>		P3600,P4600	25045586	NPJ-4PDBRW397 <D>
F9501C	29361747	T2,5AL250V <O>		25045587	NPJ-4PDBRW398 <O>
F9503C	29361769	T1,6AL250V <O>	P3601,P4601	25045575 or	NPJ-4PDRW389 or
	<b>Sockets</b>			25045303	NPJ-4PDBL162 <D>
JL6953A,JL9504A	25051108	NSCT-4P895		25045582 or	NPJ-4PDRW393 or
	<b>Plugs</b>			25045491	NPJ-4PDBL308 <O>
P9501	25055138	NPLG-8P122		<b>Sockets</b>	
P9502A	25055159	NPLG-15P143	P4010B	25051235	NSCT-10P1025
P9503	25055702	NPLG-6P658	P4011B,P4020B	25051240	NSCT-15P1030
	<b>THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-1A/1B)</b>			<b>Plugs</b>	
	<b>CIRCUIT NO. PART NO. DESCRIPTION</b>		P4012A	25055734	NPLG-3P690
	<b>Thermistors</b>		P5003E	25055152	NPLG-8P136
R5652	4000153	PTH9M04BF222TS2F333	P5004E	25055153	NPLG-9P137
R5654	4000150	PTH9M04BC222TS2F333 <D>		<b>Bus bars</b>	
	4000151	PTH9M04BD222TS2F333 <O>	J4220-J4222	27141754	BBL60
	<b>Socket</b>			<b>Holder</b>	
JL9504B	25051088	NSCT-4P875	P5004G	27190608-1	Clamp
	<b>PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1A/1B/1C)</b>			<b>AUDIO TERMINAL PC BOARD (NAAF-7263-1A/1B/1C)</b>	
	<b>CIRCUIT NO. PART NO. DESCRIPTION</b>			<b>CIRCUIT NO. PART NO. DESCRIPTION</b>	
	<b>ICs</b>		Q1001	222780125	78M12HF
Q4000,Q4420	22241383-R2 or	NJM4565M-D	Q3000	22241383-R2 or	NJM4565M-D
Q4421,Q4800	22240489R1NE	MPC4570G2-T1(MST)	Q3020,Q3021	22240489R1NE	MPC4570G2-T1(MST)
Q4100	22240943R2	TC9163AF	Q3100	22241639R2	TC9273F-017
Q4101	22241221R2	TC9164AF		<b>Transistor</b>	
Q4200-Q4203	22241640R2	TC94A07F	Q1102	2216175R2 or	KTC3875-GR or
Q4210-Q4213	22241450-R2 or	NJM2082M-D or		2213145R2	2SC2712-GR
Q4410,Q4411	22241567R2	NJM2082M		<b>Capacitors</b>	
Q4400,Q4401	22241451R9	NJU7306G	C1002	354741009	10uF,16V,Elect.
	<b>Transistors</b>		C1003,C1006	354780339	3,3uF,50V,Elect.
Q4491	2215410R2	RN1441	C1007	354741009	10uF,16V,Elect.
Q4600-Q4607	2215410R2	RN1441	C3000,C3001	374721015	100pF+/-10%,50V,Plastic <D>
Q4610-Q4617	2215410R2	RN1441		374722215	220pF+/-10%,50V,Plastic <O>
Q4810-Q4815	2215410R2	RN1441	C3002,C3003	393384707	47uF,50V,Elect.
	<b>Diode</b>		C3004,C3005	374721524	1500pF+/-5%,50V,Plastic <O>
D4540	224490510R2	UDZ5,1B	C3006,C3007	354722219	220uF,6,3V,Elect.
	<b>Capacitors</b>		C3008,C3009	374721234	0,012uF+/-5%,50V,Plastic
C3600-C3607	374723314	330pF+/-5%,50V,Plastic	C3010,C3011	374723924	3900pF+/-5%,50V,Plastic
C3610-C3617	393381007	10uF,50V,Elect.	C3020-C3023	374723314	330pF+/-5%,50V,Plastic
C3800-C3802	393384707	47uF,50V,Elect.	C3026-C3029	393384707	47uF,50V,Elect.
C3803-C3806	393381007	10uF,50V,Elect.	C3120,C3121	354744709	47uF,16V,Elect.
C3807	354724719	470uF,6,3V,Elect.	C3122,C3123	354742219	220uF,16V,Elect.
C3820,C3821	393384707	47uF,50V,Elect.		<b>Terminals</b>	
C3840,C3841	393381007	10uF,50V,Elect.	P3000,P3001	25045575 or	NPJ-4PDRW389 or
C4010,C4011	393381007	10uF,50V,Elect.		25045303	NPJ-4PDBL162 <D>
C4120	354742219	220uF,16V,Elect.		25045582 or	NPJ-4PDRW393 or
C4121	354741029S	100uF,16V,Elect.		25045491	NPJ-4PDBL308 <O>

EXPLODED VIEW



## EXPLODED VIEW-PARTS LIST 1

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	27111236A	Front bracket <B>	29	28325497A	Knob, power <B>
	27111237A	Front bracket <S>		28325547A	Knob, power <S>
	27111238A	Front bracket <G>		28325499A	Knob, power <G>
2	27191153A	Holder, jack	30	880016	P3035B,Plastic rivet
3	838430088	3TTB+8B(BC),Self-tapping screw	31	27255004	CS-1U,Clip
4	838130088	3TTB+8B,Self-taping screw	32	29110083	Tape, cloth
5	28325948	Knob, pure <B>	33	27100408	Chassis
	28325949	Knob, pure <G/S>	34	27130870	Bracket PT
6	27150472	Shield plate, FFC	35	27190965	Holder
7	28191936	Clear plate	36	27190693A	KGLS-6RF,Holder
8	28133385	Back plate <B>	37	27190266	KGLS-12RF,Holder
	28133386	Back plate <G/S>	38	27190164	KGLS-14S,Holder
9	28198905	Facet	39	830440089	4TTC+8C(BC),Self-tapping screw
10	82143010	3P+10FN(BC),Pan head screw	41	28141484	Cushion
12	28198933	Facet 5	42	27141797	Retainer, fan
13	28198936	Facet 6	43	838450108	5TTB+10B(BC),Self-tapping screw
14	27268050	Guide pure <B>	44	27150470	Shield plate, fan
	27268051	Guide pure <S>	47	27150471	Shield plate, amp.
	27268052	Guide pure <G>	49	27150474	Shield plate, wire
16	28135244	Badge <B>	52	27160489	Heat sink
	28135245	Badge <G/S>	53	801433	3SMS8W.SW+14B(BC),Special screw
17	29110163	Tape, copper	54	27141681	Retainer, PCB
18	28148485	Door <B>	55	27141798	Retainer, heat sink R
	28148486	Door <S>	56	27141799	Retainer, heat sink L
	28148487	Door <G>	57	27130869	Bracket, heat sink
19	27230025	Push latch	58	27130745	Bracket
20	27191146	Holder R <B>	60	27190470	KGLS-18S,Holder
	27191147A	Holder R <G/S>	61	838430107	3TTB+10S(BC),Self-tapping screw
21	27191148	Holder L <B>	62	28184817	Top cover <B>
	27191149A	Holder L <G/S>		28184818	Top cover <S>
22	28180150A	Hinge L <B>		28184819	Top cover <G>
	28180151A	Hinge L <G/S>	63	29362959	Label
23	28180152A	Hinge R <B>	64	29362772	Label, cover <B>
	28180153A	Hinge R <G/S>	65	838430088	3TTB+8B(BC),Self-tapping screw <B>
24	27270426	Spacer, door		838930088	3TTB+8B(UN),Self-tapping screw <S/G>
25	870071	WW-6,Wave washer	67	27175319A	Leg
26	801433	3SMS8W.SW+14B(BC),Special screw	68	28141332	Cushion
28	28325898	Knob, volume <B>	69	831430088	3TTW+8B(BC),Self-tapping screw
	28325899	Knob, volume <S>			
	28325900	Knob, volume <G>			

## EXPLODED VIEW-PARTS LIST 2

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
70	27122887A	Rear panel <D>	F9503,F9504	252158 or	1.6A-UL/T-237 or
	27122888A	Rear panel <P>		252252	1.6A-T/UL-ST2,Fuse <D>
	27122889A	Rear panel <WT>		252073 or	1.6A-SE-EAK or
	27122890A	Rear panel <A>		252239	1.6A-SE-TL250V,Fuse <P/WT/R/A/GT>
	27122891A	Rear panel <R>	P1010	2047151012	NCFC7-151012,Flat cable
	27122902A	Rear panel <GT>	P7201	2047335512	NCFC7-335512,Flat cable
71	838430088	3TTB+8B(BC),Self-tapping screw	P7701	2047051012	NCFC7-051012,Flat cable
72	87643010	W3*10F(BC),Flat washer	P901	253279HIT	! AS-UC-2#18 or
73	838930088	3TTB+8B(UN),Self-tapping screw		253280VOL	! AS-UC-2#18,Power supply cord <D>
74	838430068	3TTB+6B(BC),Self-tapping screw		253298KAW	! AS-CEE-3,Power supply cord <P/WT/GT>
75	27191130	Holder, outlet <R>		253311VOL	! AS-SAA,Power supply cord <A>
76	838440089	4TTB+8C(BC),Self-tapping screw <O>		253312VOL	! AS-CCEE,Power supply cord <R>
77	27300750	Bushing cord <D>	Q6050-Q6056	2203083 or	* 2SC5359-O or
81	27212337	Front panel <B><D>		2203082	* 2SC5359-R,Transistor
	27212338	Front panel <B><P>	Q6060-Q6066	2203073 or	* 2SA1987-O or
	27212339	Front panel <S>		2203072	* 2SA1987-R,Transistor
	27212340	Front panel <G>	T901	2301532	! NPT-1420D,Power transformer <D>
	27212365	Front panel <B><WT/A>		2301533	! NPT-1420P,Power transformer <P/A>
82	27262666	Plate, door <B><D/WT/A>		2301534	! NPT-1420DG,Power transformer <WT/R/GT>
	27262670	Plate, door <B><P>	U1	1A906526-1A	NADG-7226-1A, Main circuit PC board ass'y <D>
	27262667	Plate, door <S>		1A906526-1B	NADG-7226-1B, Main circuit PC board ass'y <P>
	27262668	Plate, door <G>		1A906526-1C	NADG-7226-1C, Main circuit PC board ass'y <WT/A/R/GT>
86	260208	Wire tie	U6	1A906532-1A	NAAF-7232-1A, F/C driver circuit PC board ass'y <D>
97	223025	AC262,Isolated sheet		1A906532-1B	NAAF-7232-1B, F/C driver circuit PC board ass'y <P>
E821	24502310	D09T-24PG10(EX),Fan		1A906532-1C	NAAF-7232-1C, F/C driver circuit PC board ass'y <R>
F6901,F6902	252196	12A-UL/T-314,Fuse <D>		1A906532-1D	NAAF-7232-1D, F/C driver circuit PC board ass'y <WT>
	252100	10A-EAK,Fuse <P/A/WT/R/GT>		1A906532-1E	NAAF-7232-1E, F/C driver circuit PC board ass'y <GT>
F901	252196	12A-UL/T-314,Fuse <D/WT/GT>		1A906532-1H	NAAF-7232-1H, F/C driver circuit PC board ass'y <A>
F902	252078,	5A-SE-EAK,	U7	1A906533-1A	NAPS-7233-1A,Primary circuit PC board ass'y <D>
	252244 or	5A-SE-TL250V or		1A906533-1B	NAPS-7233-1B,Primary circuit PC board ass'y <P>
	252278	5A-SE-TL250V,Fuse <P/WT/R/A/GT>		1A906533-1C	NAPS-7233-1C,Primary circuit PC board ass'y <R>
F903	252075,	2.5A-SE-EAK,		1A906533-1D	NAPS-7233-1D,Primary circuit PC board ass'y <WT>
	252241 or	2.5A-SE-TL250V or		1A906533-1E	NAPS-7233-1E,Primary circuit PC board ass'y <GT>
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>		1A906533-1H	NAPS-7233-1H,Primary circuit PC board ass'y <A>
F9501,F9502	252160 or	2.5A-UL/T-237 or	U8	1A906534-1A	NAPS-7234-1A,Rectifier circuit PC board ass'y <D>
	252254	2.5A-T/UL-ST2,Fuse <D>		1A906534-1B	NAPS-7234-1B,Rectifier circuit PC board ass'y <P>
	252075,	2.5A-SE-EAK,		1A906534-1C	NAPS-7234-1C,Rectifier circuit PC board ass'y <R>
	252241 or	2.5A-SE-TL250V or		1A906534-1D	NAPS-7234-1D,Rectifier circuit PC board ass'y <WT>
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>		1A906534-1E	NAPS-7234-1E,Rectifier circuit PC board ass'y <GT>
				1A906534-1H	NAPS-7234-1H,Rectifier circuit PC board ass'y <A>

## EXPLODED VIEW-PARTS LIST 3


REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
U9	1A906535-1A	NASW-7235-1A,Power switch PC board ass'y <D>	U16	1A906542-1B	NAETC-7242-1B,AC inlet terminal PC board ass'y <P>
	1A906535-1B	NASW-7235-1B,Power switch PC board ass'y <P>		1A906542-1C	NAETC-7242-1C,AC inlet terminal PC board ass'y <R>
	1A906535-1C	NASW-7235-1C,Power switch PC board ass'y <R>		1A906542-1D	NAETC-7242-1D,AC inlet terminal PC board ass'y <WT>
	1A906535-1D	NASW-7235-1D,Power switch PC board ass'y <WT>		1A906542-1E	NAETC-7242-1E,AC inlet terminal PC board ass'y <GT>
	1A906535-1E	NASW-7235-1E,Power switch PC board ass'y <GT>		1A906542-1H	NAETC-7242-1H,AC inlet terminal PC board ass'y <A>
	1A906535-1H	NASW-7235-1H,Power switch PC board ass'y <A>		U17	1A906543-1A
U10	1A906536-1A	NAETC-7236-1A,Speaker terminal F/C pc board ass'y <D>	1A906543-1B		NAETC-7243-1B,PC board for holder <P>
	1A906536-1B	NAETC-7236-1B,Speaker terminal F/C pc board ass'y <P>	1A906543-1C		NAETC-7243-1C,PC board for holder <R>
	1A906536-1C	NAETC-7236-1C,Speaker terminal F/C pc board ass'y <R>	1A906543-1D		NAETC-7243-1D,PC board for holder <WT>
	1A906536-1D	NAETC-7236-1D,Speaker terminal F/C pc board ass'y <WT>	1A906543-1E		NAETC-7243-1E,PC board for holder <GT>
	1A906536-1E	NAETC-7236-1E,Speaker terminal F/C pc board ass'y <GT>	1A906543-1H		NAETC-7243-1H,PC board for holder <A>
	1A906536-1H	NAETC-7236-1H,Speaker terminal F/C pc board ass'y <A>	U18	1A906544-1A	NAETC-7244-1A,Ground PC board ass'y <D>
U11	1A906537-1A	NAETC-7237-1A,Speaker terminal SR/SB pc board ass'y <D>		1A906544-1B	NAETC-7244-1B,Ground PC board ass'y <P>
	1A906537-1B	NAETC-7237-1B, Speaker terminal SR/SB pc board ass'y <P>		1A906544-1C	NAETC-7244-1C,Ground PC board ass'y <R>
	1A906537-1C	NAETC-7237-1C, Speaker terminal SR/SB pc board ass'y <R>		1A906544-1D	NAETC-7244-1D,Ground PC board ass'y <WT>
	1A906537-1D	NAETC-7237-1D, Speaker terminal SR/SB pc board ass'y <WT>		1A906544-1E	NAETC-7244-1E,Ground PC board ass'y <GT>
	1A906537-1E	NAETC-7237-1E, Speaker terminal SR/SB pc board ass'y <GT>		1A906544-1H	NAETC-7244-1H,Ground PC board ass'y <A>
	1A906537-1H	NAETC-7237-1H, Speaker terminal SR/SB pc board ass'y <A>	U21	1A906550-1A	NAAF-7250-1A,Power amplifier driver PC board ass'y <D>
U12	1A906538-1A	NAETC-7238-1A,Fan drive circuit PC board ass'y <D>		1A906550-1B	NAAF-7250-1B,Power amplifier driver PC board ass'y <O>
	1A906538-1B	NAETC-7238-1B,Fan drive circuit PC board ass'y <P>	U22	1A906551-1A	NAAF-7251-1A,Power amplifier driver PC board ass'y <D>
	1A906538-1C	NAETC-7238-1C,Fan drive circuit PC board ass'y <R>		1A906551-1B	NAAF-7251-1B,Power amplifier driver PC board ass'y <O>
	1A906538-1D	NAETC-7238-1D,Fan drive circuit PC board ass'y <WT>	U23	1A906552-1A	NAPS-7252-1A,Power supply circuit PC board ass'y <D>
	1A906538-1E	NAETC-7238-1E,Fan drive circuit PC board ass'y <GT>		1A906552-1B	NAPS-7252-1B,Power supply circuit PC board ass'y <O>
	1A906538-1H	NAETC-7238-1H,Fan drive circuit PC board ass'y <A>	U29	1A906558-1A	NAETC-7258-1A Thermal detector circuit PC board ass'y <D>
U13	1A906539-1A	NAETC-7239-1A,Thermal detector circuit PC board ass'y <D>		1A906558-1B	NAETC-7258-1B Thermal detector circuit PC board ass'y <O>
	1A906539-1B	NAETC-7239-1B,Thermal detector circuit PC board ass'y <P>	U31	1A906562-1A	NAAF-7262-1A,Pre-amplifier circuit PC board ass'y <D>
	1A906539-1C	NAETC-7239-1C,Thermal detector circuit PC board ass'y <R>		1A906562-1B	NAAF-7262-1B,Pre-amplifier circuit PC board ass'y <P>
	1A906539-1D	NAETC-7239-1D,Thermal detector circuit PC board ass'y <WT>	1A906562-1C	NAAF-7262-1C,Pre-amplifier circuit PC board ass'y <PT/A/R/GT>	
	1A906539-1E	NAETC-7239-1E,Thermal detector circuit PC board ass'y <GT>	U32	1A906563-1A	NAAF-7263-1A,Audio terminal PC board ass'y <D>
	1A906539-1H	NAETC-7239-1H,Thermal detector circuit PC board ass'y <A>		1A906563-1B	NAAF-7263-1B,Audio terminal PC board ass'y <P>
U15	1A906541-1A	NAETC-7241-1A,PC board for holder <D>	1A906563-1C	NAAF-7263-1C,Audio terminal PC board ass'y <PT/A/R/GT>	
	1A906541-1B	NAETC-7241-1B,PC board for holder <P>	U33	1A906564-1A	NAAF-7264-1A,Video terminal PC board ass'y <D>
	1A906541-1C	NAETC-7241-1C,PC board for holder <R>		1A906564-1B	NAAF-7264-1B,Video terminal PC board ass'y <P>
	1A906541-1D	NAETC-7241-1D,PC board for holder <WT>	1A906564-1C	NAAF-7264-1C,Video terminal PC board ass'y <PT/A/R/GT>	
	1A906541-1E	NAETC-7241-1E,PC board for holder <GT>	U35	1A906567-1A	NAAR-7267-1A,Connector PC board ass'y, <D>
	1A906541-1H	NAETC-7241-1H,PC board for holder <A>		1A906567-1B	NAAR-7267-1B,Connector PC board ass'y, <O>
			U36	1A906568-1A	NAVD-7268-1A,Composite video circuit PC board ass'y <D>
				1A906568-1B	NAVD-7268-1B,Composite video circuit PC board ass'y <O>
			U37	1A906569-1A	NAVD-7269-1A,,S video circuit PC board ass'y <D>
				1A906569-1B	NAVD-7269-1B,,S video circuit PC board ass'y <O>

## EXPLODED VIEW-PARTS LIST 4

REF. NO.	PART NO.	DESCRIPTION
U38	1A906570-1A	NAVD-7270-1A,Component video terminal PC board ass'y <D>
	1A906570-1B	NAVD-7270-1B,Component video terminal PC board ass'y <O>
U39	1A906572-1A	NAETC-7272-1A,RI terminal PC board ass'y <D>
	1A906572-1B	NAETC-7272-1B,RI terminal PC board ass'y <O>
U40	1A906573-1A	NAETC-7273-1A,PC board for holder <D>
	1A906573-1B	NAETC-7273-1B,PC board for holder <O>
U44	1A906575-1A	NADIS-7275-1A,Display circuit PC board ass'y <D>
	1A906575-1B	NADIS-7275-1B,Display circuit PC board ass'y <P>
	1A906575-1C	NADIS-7275-1C,Display circuit PC board ass'y <A/GT>
	1A906575-1D	NADIS-7275-1D,Display circuit PC board ass'y <WT/R>
U45	1A906576-1A	NASW-7276-1A,Volume PC board ass'y <D>
	1A906576-1B	NASW-7276-1B,Volume PC board ass'y <P>
	1A906576-1C	NASW-7276-1C,Volume PC board ass'y <A/GT>
	1A906576-1D	NASW-7276-1D,Volume PC board ass'y <WT/R>
U46	1A906577-1A	NAETC-7277-1A,Headphone terminal; PC board ass'y <D>
	1A906577-1B	NAETC-7277-1B,Headphone terminal; PC board ass'y <P>
	1A906577-1C	NAETC-7277-1C,Headphone terminal; PC board ass'y <A/GT>
	1A906577-1D	NAETC-7277-1D,Headphone terminal; PC board ass'y <WT/R>
U47	1A906578-1A	NAETC-7278-1A,Front video PC board ass'y <D>
	1A906578-1B	NAETC-7278-1B,Front video PC board ass'y <P>
	1A906578-1C	NAETC-7278-1C,Front video PC board ass'y <A/GT>
	1A906578-1D	NAETC-7278-1D,Front video PC board ass'y <WT/R>
U48	1A906579-1A	NAETC-7279-1A,Front video 2 PC board ass'y <D>
	1A906579-1B	NAETC-7279-1B,Front video 2 PC board ass'y <P>
	1A906579-1C	NAETC-7279-1C,Front video 2 PC board ass'y <A/GT>
	1A906579-1D	NAETC-7279-1D,Front video 2 PC board ass'y <WT/R>
U51	240138A or 240134A	ENG06501QR or TFCE1U114B,Tuner unit <D>
	240139A or 240135	ENG07501QR or TFCE1E512A,Tuner unit <P/A/WT/GT/R>

NOTE: <B>: Black model only  
 <S>: Silver model only  
 <G>: Golden model only  
 <D>: 120V model only  
 <P>: European model only  
 <WT>.: Worldwide model only  
 <GT>: 220V model only  
 <A>: Australian model only  
 <R>: Chinese model only  
 <O>:Except 120V model

CAUTION: Replacement for transistor of mark \*, if necessary  
 must be made from the same beta group (HFE) as  
 the original type.

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

# PACKING PROCEDURES

## PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	NOTE:
101	29092002	Pad	<B>: Black model only
102	29095906	Sheet	<S>: Silver model only
103	29100153	1020x720,Poly bag	<G>: Golden model only
104	29110149	Tape, cellophane	<D>: 120V model only
105	29110098	Tape PP	<P>: European model only
106	261504	Tape, paper	<WT>.: Worldwide model only
107	29053790	Carton box S	<GT>: 220V model only
108	29355256	Instruction sheet, caution	<A>: Australian model only
111	29053794	Carton box <D>	<R>: Chinese model only
	29053795	Carton box <B><p>	<O>:Except 120V model
	29053796	Carton box <B><WT/A>	
	29053797	Carton box <S>	
	29053798	Carton box <G>	
112	29362923	Label UPC <D>	
	29362920	Label EAN <B><O>	
	29362921	Label EAN <S>	
	29362922	Label EAN <G>	
113	29365090	Warranty card <D>	
121	29100097-1A	350*250,Poly bag	
122	29100097-1A	350*250,Poly bag <P>	
123	29343172	Instruction manual E <D>	
	29343166	Instruction manual E <O>	
124	29343168	Instruction manual FSI <P>	
125	29343169	Instruction manual GDSw <P>	
126	29343170	Instruction manual CTCS <WT/GT/R>	
128	29343173	Instruction manual E <D>	
131	24140460	RC-460M,Remote controller <D>	
132	24140462	USR-5,Remote controller <O>	
134	3010054	UM-3,Two batteries <D>	
135	3010358	UM-3,Four batteries <O>	
136	292142	FM antenna <D>	
	292115	FM antenna <O>	
137	25065462	YAE21-0237,Antenna adapter <WT/A/GT>	
138	25056005	CV-K-1,Conversion plug <WT/GT>	
139	232140	NMA-3057,AM antenna	



---

**ONKYO CORPORATION**

Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN  
Tel: 072-831-8111 Fax: 072-833-5222

**ONKYO U.S.A. CORPORATION**

18 Park Way, Upper Saddle River, N.J. 07458, U.S.A.  
Tel: 201-785-2600 Fax: 201-785-2650 E-mail: onkyo@onkyousa.com

**ONKYO EUROPE ELECTRONICS GmbH**

Industriestrasse 20, 82110 Germering, GERMANY  
Tel: 089-849-320 Fax: 089-849-3265 E-mail: info@onkyo.de

**ONKYO CHINA LIMITED**

Units 2102-2107, Metroplaza Tower I, 223 Hing Fong Road, Kwai Chung,  
N.T., HONG KONG Tel: 852-2429-3118 Fax: 852-2428-9039



## PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: <D>:120V model only  
<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Sockets</b>			<b>Plugs</b>	
P1010A	25052248, 25051859 or 25052061	NSCT-15P2145, NSCT-15P1646 or NSCT-15P1848	P4010A	25055706	NPLG-10P662
P3010B	25051232	NSCT-7P1022	P4011A,P4020A	25055711	NPLG-15P667
P3011B	25051240	NSCT-15P1030	P7703A	25055712	NPLG-20P668
			P7704A	25055704	NPLG-8P660
			P7705A	25055711	NPLG-15P667
			P811A	25055712	NPLG-20P668
				<b>Bus bar</b>	
			J2903	27141753	BBL50
				<b>Clamp</b>	
			P2902	260224	CP-1S
<b>VIDEO TERMINAL PC BOARD (NAAF-7264-1A/1B/1C)</b>			<b>COMPOSITE VIDEO CIRCUIT PC BOARD (NAVD-7268-1A/1B)</b>		
CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>ICs</b>			<b>ICs</b>	
Q3200-Q3205	22241383-R2 or	NJM4565M-D or	Q2001	22241037	LC74761-9189
Q3400	22240489R1NE	MPC4570G2-T1(MST)	Q2005	22241619R2	TC9273F-004
Q3300	22240829	TC9274N-008	Q2101	222740515R2	74HC4051AF
	<b>Transistors</b>		Q2102,Q2105	22241443R2	TK15420M
Q3410-Q3043	2215410R2	RN1441	Q2201	222740515R2	74HC4051AF
	<b>Capacitors</b>			<b>Transistors</b>	
C3200-C3209	374723314	330pF+/-5%,50V,Plastic	Q2002,Q2006	2216175R2 or	KTC3875-GR or
C3212-C3223	393384707	47uF,50V,Elect.	Q2103,Q2106	2213145R2	2SC2712-GR
C3320-C3323	354742219	220uF,16V,Elect.	Q2003,Q2004	2216031R2 or	RN1444-A or
C3400-C3403	393384707	47uF,50V,Elect.	Q2108,Q2109	2216032R2	RN1444-B
C3404,C3405	374721024	1000pF+/-5%,50V,Plastic	Q2007	2216210R2 or	KRC104S or
	<b>Resistors</b>			2214490R2	RN1404
R3320,R3321	443522204	22ohm+/-5%,1/2W,Metal oxide	Q2011-Q2014	2216220R2 or	KRA102S or
	<b>Terminals</b>			2214530R2	RN2402
P3200-P3203	25045575 or 25045303 25045582 or 25045491	NPJ-4PDRW389 or NPJ-4PDBL162 <D> NPJ-4PDRW393 or NPJ-4PDBL308 <O>	Q2104,Q2107	2216185R2 or	KTA1504-GR or
	<b>Sockets</b>			2214375R2	2SA1162-GR
P3210B,P3211B	25051232	NSCT-7P1022	Q2301-Q2308	2216031R2 or	RN1444-A or
	<b>Plug</b>			2216032R2	RN1444-B
P3220A	25055133	NPLG-3P117		<b>Diodes</b>	
			D2001	223234R2 or	1SS352 or
			D2006,D2007	223269R2	1SS355
			D2103,D2104	223234R2 or	1SS352 or
			D2106,D2107	223269R2	1SS355
				<b>Crystals</b>	
			X2001	3010167 or 3010347	XTL-14,32M or HQS-HC49U-14318-11
			X2002	3010238 or 3010348	XTL-17,73M or HQS-HC49U-17734-11 <O>
				<b>Coils</b>	
			L2001	231292J056R2	NCH-1572
			L2002	231237K022R2	NCH-1471
				<b>Capacitors</b>	
			C2001	354721019	100uF,6,3V,Elect.
			C2002,C2016	354780109	1uF,50V,Elect.
			C2005	354783399	0,33uF,50V,Elect.
			C2015	374726824	6800pF+/-5%,50V,Plastic
			C2017	374722234	0,022uF+/-5%,50V,Plastic
			C2020	354784799	0,47uF,50V,Elect.
			C2021	375524744	0,47uF+/-5%,50V,Plastic
			C2022,C2024	354721019	100uF,6,3V,Elect.
			C2026,C2028	354741009	10uF,16V,Elect.
			C2044	354741009	10uF,16V,Elect.
			C2045	354780229	2,2uF,50V,Elect.
			C2046	354784799	0,47uF,50V,Elect.
			C2047	354721019	100uF,6,3V,Elect.
			C2104,C2106	354721019	100uF,6,3V,Elect.
			C2121	354741009	10uF,16V,Elect.
			C2204,C2206	354721019	100uF,6,3V,Elect.
			C2221,C2306	354721019	100uF,6,3V,Elect.
			C2301-C2304	354721019	100uF,6,3V,Elect.
				<b>Terminals</b>	
			P2001-P2003	25045299	NPJ-3PDYE158 <D>
				25045363	NPJ-3PDYE208 <O>
				<b>Sockets</b>	
			P2005B	25051237	NSCT-12P1027
			P2006B	25051240	NSCT-15P1030
			P2007B	25051241	NSCT-20P1031

## PRINTED CIRCUIT BOARD-PARTS LIST 7

NOTE: <D>:120V model only  
<O>: All models except 120V model

## S VIDEO CIRCUIT PC BOARD (NAVD-7269-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>ICs</b>
Q2501,Q2511	222740515R2	74HC4051AF
Q2502,Q2602	22241443R2	TK15420M
Q2601,Q2611	222740515R2	74HC4051AF
		<b>Transistors</b>
Q2401-Q2414	2216031R2 or	RN1444-A or
Q2522,Q2622	2216032R2	RN1444-B
Q2503,Q2505	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
Q2504,Q2506	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
		<b>Diodes</b>
D2503-D2506	223234R2 or	1SS352 or
	223269R2	1SS355
		<b>Coils</b>
L2508,L2608	231237K022R2	NCH-1471
L2509,L2609	231292J056R2	NCH-1572
		<b>Capacitors</b>
C2422,C2424	354721019	100uF,6,3V,Elect.
C2426,C2428	354721019	100uF,6,3V,Elect.
C2432	354721019	100uF,6,3V,Elect.
C2504,C2506	354721019	100uF,6,3V,Elect.
C2573,C2575	354721019	100uF,6,3V,Elect.
C2604,C2606	354721019	100uF,6,3V,Elect.
		<b>Sockets</b>
P2501	25051750	NSCT-4P1537 <D>
	25051955	NSCT-4P1742 <O>
P2502	25051568	NSCT-12P1355 <D>
	25051957	NSCT-12P1744 <O>
P2503,P2504	25051748	NSCT-8P1535 <D>
	25051956	NSCT-8P1743 <O>
P2505B	25051237	NSCT-12P1027
P2507B	25051241	NSCT-20P1031
		<b>Plug</b>
P2506A	25055236	NPLG-5P220

## COMPONENT VIDEO CIRCUIT PC BOARD (NAVD-7270-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>Transistor</b>
Q2701	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
		<b>Diode</b>
D2701	223234R2 or	1SS352 or
	223269R2	1SS355
		<b>Relays</b>
RL2701,RL2702	25065610	NRL-2P1A-DC4,5-156
		<b>Terminals</b>
P2701-P2703	25045629	NPJ-3PDGLR436 <D>
	25045607	NPJ-3PDGLR414 <O>
		<b>Socket</b>
P2705B	25051233	NSCT-8P1023

## RI TERMINAL PC BOARD (NAETC-7272-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>ICs</b>
Q201	22241537R2	MPD4721GS <O>
Q233	222780565	78M56
		<b>Photo coupler</b>
Q211	24120080	PC817X
		<b>Transistors</b>
Q231,Q232	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
		<b>Diodes</b>
D201	223234R2 or	1SS352 or
	223269R2	1SS355 <O>
D202,D203	223234R2 or	1SS352 or
	223269R2	1SS355
		<b>Coil</b>
L201	230948R2	BLM21A102F <O>

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>Capacitors</b>
C201-C204	354780109	1uF,50V,Elect. <O>
C207	354721019	100uF,6,3V,Elect. <D>
C223	354744709	47uF,16V,Elect.
C231	354741009	10uF,16V,Elect.
C232	354751029S	1000uF,25V,Elect.
		<b>Resistors</b>
R233	453532294	0,22ohm+/-5%,1/2W,Metal
R234	441721514	150ohm+/-5%,2W,Metal oxide
		<b>Terminal</b>
P202,P204	25045647	HSJ1002-01-1020
		<b>Sockets</b>
JL931A	25051107	NSCT-3P894
P201	25052379	NSCT-9P2277 <O>
P2901B	25052142	NSCT-19P2040
P6830B,P6832B	25051255	NSCT-3P1045
		<b>Radiator</b>
Q233A	27160145	RAD-51
		<b>Screw</b>
Q233B	82143010	3P+10FN(BC)

## CONNECTOR PC BOARD (NAETC-7273-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>Plugs</b>
P2007A,P2507A	25055712	NPLG-20P668

## DISPLAY CIRCUIT PC BOARD (NADIS-7275-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>FL tube</b>
Q7501	212216	16-BT-96GNK
		<b>Remote sensor</b>
U7201	241335 or	SPS-444-1 or
	241341	SPS-444-1-E1
		<b>ICs</b>
Q7201	22241682R3	M30624MGA-359FP
Q7502	22241680R2	M66005-0001FP
		<b>Transistors</b>
Q7202	2216230R2 or	KRA103S or
	2214540R2	RN2403
Q7503	2216175R2 or	KTC3875-GR or
Q7536,Q7537	2213145R2	2SC2712-GR
Q7521-Q7527	2216190R2 or	KRC102S or
Q7529-Q7535	2214470R2	RN1402
		<b>Diodes</b>
D7201,D7202	223234R2 or	1SS352 or
D7502	223269R2	1SS355
D7203	224490510R2 or	UDZ5,1B or
	224550510R2	UDZS5,1B
D7501	224490820R2 or	UDZ8,2B or
	224550820R2	UDZS8,2B
D7521-D7527	225375	SML1216C
D7529-D7532	225375	SML1216C
D7533	225290	SEL4110R
D7534	225292D	SEL4310G-D
D7535	225374	SEL2E10C
		<b>Oscillator</b>
X7201	3010322	CST16,00MXW0C1,Ceramic
		<b>Coils</b>
L7201	231237M022R2	NCH-1471
R7201,R7202	230958R1	BK1608LM182-T
		<b>Capacitors</b>
C7201,C7202	355721019	100uF,6,3V,Elect.
C7203,C7204	375524744	0,47uF+/-5%,50V,Plastic
C7207	355721019	100uF,6,3V,Elect.
C7503,C7510	354721019S	100uF,6,3V,Elect.
C7506	375524744	0,47uF+/-5%,50V,Plastic
		<b>Switches</b>
S7541-S7549	25035699	NPS-111-S662
S7551-S7559	25035699	NPS-111-S662
S7561-S7568	25035699	NPS-111-S662
S7571-S7579	25035699	NPS-111-S662

## PRINTED CIRCUIT BOARD-PARTS LIST 8

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Sockets</b>	
P7201A	25051877	NSCT-33P1664
P7482A	25051089	NSCT-5P876
P7559A	25051087	NSCT-3P874
	<b>Holder</b>	
Q7501A	27191074A	(FL)

### VOLUME PC BOARD (NASW-7276-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
S7569	25065575	EC16B2425, Rotary encoder
P7559B	25051087	NSCT-3P874, Socket

### HEADPHONE TERMINAL PC BOARD (NAETC-7277-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
P7481	25045385	YKB26-5153, Terminal
P7482B	25051089	NSCT-5P876, Socket

### FRONT VIDEO PC BOARD (NAETC-7278-1A/1B/1C/1D)


CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Terminal</b>	
P2510	25045678	NPJ-3PDB475
	<b>Sockets</b>	
P2506B	2009990575UL	NSAS-10P0784
P2508	25051569	NSCT-4P1356
P3220B	2009990420	NSAS-6P0564

### FRONT VIDEO 2 PC BOARD (NAETC-7278-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
U2501	24120095	TORX179, Photo coupler
L2576	231237M022R2	NCH-1471, Coil
C2579	354741009	10uF, 16V, Elect. Capacitor
P102B	2009990513UL	NSAS-6P0675, Socket

**NOTE:** <D>: 120V model only  
 <P>: European model only  
 <WT>: Worldwide model only  
 <GT> 220V model only  
 <R> Chinese model only  
 <A>: Australian model only  
 <O>: All models except 120V model

**CAUTION:** Replacement for transistor of mark \*, if necessary must be made from the same beta group (HFE) as the original type.

<p><b>NOTE:</b> THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.</p>
--

## PRINTED CIRCUIT BOARD-PARTS LIST 2

NOTE: <D>:120V model only <R> Chinese model only  
 <P>:European model only <A>: Australian model only  
 <WT>:Worldwide model only <O>: All models except 120V model  
 <GT> 220V model only

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Sockets</b>	
P6000A-P6002A	25052287	NSCT-4P2184
P6010A	25052289	NSCT-6P2186
P6011A,P6012A	25052287	NSCT-4P2184

## PRIMARY CIRCUIT PC BOARD (NAPS-7233-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Transistor</b>	
Q921	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S
	<b>Diodes</b>	
D921-D924	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D925	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
	<b>Power transformer</b>	
T902	2300670A 2300671A 2300672A	⚠ NPT-1111D <D> ⚠ NPT-1111P <P/A> ⚠ NPT-1111DG SV8550W<GT/WT/R>
	<b>Capacitors</b>	
C901	3500196S	⚠ RE275V-103M
C902	3300030	⚠ DE1307E472M-KH
C922	354762219	220uF,35V,Elect,
	<b>Resistors</b>	
R901	431533355	⚠ RC1/2GFKUL-3,3M <D>
R924	443521804	18ohm+/-5%,1/2W,Metal oxide
	<b>Relay</b>	
RL901	25065584, 25065516 or 25065588	⚠ NRL-1P10A-DC12-140, ⚠ NRL-1P10A-DC12-097 or ⚠ NRL-1P10A-DC12-143
	<b>Switch</b>	
S902	25065437	⚠ NSS-22157P <WT/R>
	<b>AC outlet</b>	
P902	25051126 25051125 25052115 25052381	⚠ NSCT-4P913 <D> ⚠ NSCT-4P912 <P/WT/GT> ⚠ NSCT-2P2013 <A> ⚠ NSCT-2P2278 <R>
	<b>Fuses</b>	
F901	252196	⚠ 12A-UL/T-314 <D/WT/R>
F902	252078, 252244 or 252278	⚠ 5A-SE-EAK, ⚠ 5A-SE-TL250V or ⚠ 5A-SE-TL250V <O>
F903	252075, 252241 or 252275	⚠ 2,5A-SE-EAK, ⚠ 2,5A-SE-TL250V or ⚠ 2,5A-SE-TL250V <O>
	<b>Fuse holders</b>	
F901A,F901B	250113	⚠ SN5051<D/WT/R>
F902A,F902B	25052133	⚠ NSCT-1P2031 <O>
F903A,F903B	25052133	⚠ NSCT-1P2031 <O>
	<b>Fuse labels</b>	
F901C	29362325	⚠ 12A/250V <D/WT/R>
F902C	29361938	⚠ T5AL250V <O>
	<b>Socket</b>	
JL931B	25050267	NSCT-3P95
	<b>Plugs</b>	
P901A	25055675 or 25056028	NPLG-2P631 or NPLG-2P0978 <D>
P911	25055675 or 25056028	NPLG-2P631 or NPLG-2P0978
P912	25055675 or 25056028	NPLG-2P631 or NPLG-2P0978 <WT/GT/R>

## RECTIFIER CIRCUIT PC BOARD (NAPS-7234-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Diodes</b>	
D6901,D6902	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D6903,D6904	22380309 or 22380044	D15XB60 or RBV-1506
D6906	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
	<b>Capacitors</b>	
C6903	374722234	0,022uF+/-5%,50V,Plastic
C6908-C6911	374733344	0,33uF+/-5%,100V,Plastic
C6915,C6916	374733344	0,33uF+/-5%,100V,Plastic
	<b>Relays</b>	
RL6901,RL6902	25065584, 25065516 or 25065588	NRL-1P10A-DC12-140, NRL-1P10A-DC12-097 or NRL-1P10A-DC12-143
	<b>Fuses</b>	
F6901,F6902	252196 252100	12A-UL/T-314 <D> 10A-EAK <O>
	<b>Fuse holders</b>	
F6901A,F6901B	250113 25052133	SN5051 <D> NSCT-1P2031 <O>
F6902A,F6902B	250113 25052133	SN5051 <D> NSCT-1P2031 <O>
	<b>Fuse labels</b>	
F6901C	29362325 29362801	12A/250V <D> T10AL250V <O>
	<b>Socket</b>	
JL6953B	25050268	NSCT-4P96
	<b>Plugs</b>	
P6401	25055042	NPLG-3P32
P6951	25055172	NPLG-9P156
P6952A	25055168	NPLG-5P152
P9505A	25055600	NPLG-2P568
	<b>Radiator</b>	
D6903A	27160483	RAD-152
	<b>Screws</b>	
D6903B,D6904B	82143010	3P+10FN(BC)
	<b>Spring washers</b>	
D6903C,D9604C	871430	SW-3(BC)

## POWER SWITCH PC BOARD (NASW-7235-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
S906	25035636	⚠ NPS-111-L590P,Push switch

## SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Diode</b>	
D6600	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
	<b>Coils</b>	
L6800-L6802	231176S	S-1,3C <O>
	<b>Capacitors</b>	
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>
C6830-C6832	374731034	0,01uF+/-5%,100V,Plastic
	<b>Resistors</b>	
R6830-R6832	453630824	8,2ohm+/-5%,1W,Metal
	<b>Relays</b>	
RL6600,RL6602	25065563, 25065517 or 25065586	NRL-2P5A-DC24-129, NRL-2P5A-DC24-098 or NRL-2P5A-DC24-142
	<b>Terminals</b>	
P6800	25060309 25060310	NTM-6PDMN240 <D> NTM-6PDMN241 <O>
	<b>Plugs</b>	
P6008A	25055167	NPLG-4P151
P6810D	25055166	NPLG-3P150
P6830	25055734	NPLG-3P690

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

## PRINTED CIRCUIT BOARD-PARTS LIST 3

NOTE: <D>:120V model only  
<O>: All models except 120V model

## SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
D6603,D6605	<b>Diodes</b>	
	223163,	1SS133,
	223205 or 223222	1SS270A or WG713A
L6803-L6806	<b>Coils</b>	
	231176S	S-1,3C <O>
C6833-C6836	<b>Capacitors</b>	
	374731034	0,01uF+/-5%,100V,Plastic
C6843-C6846	374731024	1000pF+/-5%,100V,Plastic <O>
R5613	<b>Resistors</b>	
	453530474	4,7ohm+/-5%,1/2W,Metal
R6833-R6836	453630824	8,2ohm+/-5%,1W,Metal
RL6603,RL6605	<b>Relays</b>	
	25065563,	NRL-2P5A-DC24-129,
	25065517 or 25065586	NRL-2P5A-DC24-098 or NRL-2P5A-DC24-142
P6802	<b>Terminals</b>	
	25060307	NTM-8PDMN238 <D>
	25060308	NTM-8PDMN239 <O>
P6008B	<b>Plugs</b>	
	25055169	NPLG-6P153
P6812E	25055168	NPLG-5P152
P6832	25055734	NPLG-3P690
P6931	25055701	NPLG-5P657

## FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q5601	<b>Transistors</b>	
	2212445	2SK365-GR
	2215864,	KTC3199-GR,
Q5602,Q5603	2212115,	2SC2458-GR,
Q5607,Q6701	2213284 or	2SC1740S-R or
Q6702	2213285	2SC1740S-S
Q5604,Q5605	2215820,	KRC104M,
	221282 or	DTC144ES or
Q5608,Q5609	2213560	RN1204
Q5606	2203595,	KTC2026-GR,
	2202705,	2SD2394-E,
	2202706 or	2SD2394-F or
	2203594	KTC2026-Y
Q6704	2215995,	KTA1267-GR,
	2212125,	2SA1048-GR,
	2213354 or	2SA933S-R or
	2213355	2SA933S-S
D5601	<b>Diodes</b>	
	223163,	1SS133,
	223205 or	1SS270A or
D5604-D5607	223222	WG713A
D5609,D5610	22380260,	RL1N4003,
D5602,D5603	22380032 or	1SR139-100 or
	22380035	GP104003E
D5611	224471303	MTZJ13C
D6701,D6702	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
D6703,D6704	224470512	MTZJ5,1B
	<b>Capacitors</b>	
C5602-C5604	354761019	100uF,35V,Elect.
C6701,C6706	354761019	100uF,6,3V,Elect.
C6704	354780109	1uF,50V,Elect.
R5612	<b>Resistors</b>	
	443521014	100ohm+/-5%,1/2W,Metal oxide
R5616	441721224	1,2kohm+/-5%,2W,Metal oxide
P7701B	<b>Sockets</b>	
	25052201,	NSCT-5P2098,
	25051271,	NSCT-5P1060,
	25051812 or	NSCT-5P1599 or
	25052014	NSCT-5P1801
P9503A	25051231	NSCT-6P1021
JL6933A	25051088	NSCT-4P875

CAUTION: Replacement for transistor of mark \*, if necessary must be made from the same beta group (HFE) as the original type.

## THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7239-1A/1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
R5651	<b>Thermistors</b>	
	4000153	PTH9M04BF222TS2F333
	4000150	PTH9M04BC222TS2F333 <D>
R5653	4000151	PTH9M04BD222TS2F333 <O>
JL6933B	<b>Socket</b>	
	25051088	NSCT-4P875

## AC INLET TERMINAL PC BOARD (NAETC-7242-1B/1C/1D/1E/1H)

CIRCUIT NO.	PART NO.	DESCRIPTION
P901B	<b>AC inlet</b>	
	25055960	NPLG-2P913 <O>

## POWER AMPLIFIER DRIVER PC BOARD (NAAF-7250-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q6000-Q6006	<b>Transistors</b>	
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q6010-Q6016	2215995,	KTA1267-GR,
	2212125,	2SA1048-GR,
Q6020-Q6022	2213354 or	2SA933S-R or
	2213355	2SA933S-S
Q6023-Q6026	2211455 or	2SA1015-GR or
	2211454	2SA1015-Y
Q6030-Q6032	2215854,	KTC3206-Y,
	2211633,	2SC2229-O,
	2211634 or	2SC2229-Y or
	2215853	KTC3206-O
Q6033-Q6036	2203434 or	KTD2061-Y or
	2203010	2SC5171
Q6040-Q6042	2215844,	KTA1024-Y,
	2211353,	2SA949-O,
Q6043-Q6046	2211354 or	2SA949-Y or
	2215843	KTA1024-O
Q6050-Q6056	2203424 or	KTB1369-Y or
	2203000	2SA1930
Q6060-Q6066	2203083 or	* 2SC5359-O or
	2203082	* 2SC5359-R
Q6070-Q6076	2203073 or	* 2SA1987-O or
	2203072	* 2SA1987-R
Q6090-Q6092	2214984 or	2SC2631-R or
	2214985	2SC2631-S
Q6100-Q6102	2203424 or	KTB1369-Y or
	2203000	2SA1930
D6000-D6006	2203434 or	KTD2061-Y or
	2203010	2SC5171
	2215885,	KTA1268-GR,
L6000-L6002	2211792,	2SA992-F,
	2211793 or	2SA992-E or
	2215886	KTA1268-BL
L6010-L6012	<b>Diodes</b>	
	223163,	1SS133,
C6000-C6006	223205 or	1SS270A or
	223222	WG713A
C6020-C6022	<b>Cores</b>	
	5597-45502	
C6023-C6026	<b>Capacitors</b>	
	374721024	1000pF+/-5%,50V,Plastic
C6030-C6036	394501007	10uF,160V,Elect.
	354784709	47uF,50V,Elect.
C6510-C6514	374734734	0,047uF+/-5%,100V,Plastic
C6520-C6523	354790479	4,7uF,100V,Elect.
C6531-C6533	354790479	4,7uF,100V,Elect.
C6901,C6902	374721034	0,01uF+/-5%,50V,Plastic
R6040-R6046	3504373	15000uF,71V,Elect. <D>
R6070-R6072	<b>Resistors</b>	
R6073-R6076	5210258	N06HR1KBC,Trimming
R6080-R6082	443528204	82ohm+/-5%,1/2W,Metal oxide
R6083-R6086	443521814	180ohm+/-5%,1/2W,Metal oxide
	443521004	10ohm+/-5%,1/2W,Metal oxide
	453530224	2,2ohm+/-5%,1/2W,Metal

## PRINTED CIRCUIT BOARD-PARTS LIST 4

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
<b>Resistors</b>			<b>Transistors</b>		
R6090-R6092	443521004	10ohm+/-5%,1/2W,Metal oxide	Q5083-Q5086	2215854,	* KTC3206-Y,
R6093-R6096	453530224	2,2ohm+/-5%,1/2W,Metal		2211633,	* 2SC2229-O,
R6100-R6106	4000201,	RF-5EGKR22,		2211634 or	* 2SC2229-Y or
	4000132 or	RGC55 0,22 or		2215853	* KTC3206-O
	4500245	BPR55FK0,22, Metal plate	<b>Diodes</b>		
R6130-R6136	453630824	8,2ohm+/-5%,1W,Metal	D5003-D5006	224470562	MTZJ5,6B
R6230-R6232	443521214	120ohm+/-5%,1/2W,Metal oxide	<b>Capacitors</b>		
R6240-R6242	443521214	120ohm+/-5%,1/2W,Metal oxide	C5003-C5006	393384707	47uF,50V,Elect.
R6250-R6252	443521804	18ohm+/-5%,1/2W,Metal oxide	C5013-C5016	374722215	220pF+/-10%,50V,Plastic
R6260-R6262	443521804	18ohm+/-5%,1/2W,Metal oxide	C5043-C5046	393341017	100uF,16V,Elect.
R6270-R6272	453530224	2,2ohm+/-5%,1/2W,Metal	C5053-C5056	354781009	10uF,50V,Elect.
R6280-R6282	453530224	2,2ohm+/-5%,1/2W,Metal	C5073-C5076	354791009	10uF,100V,Elect.
R6510-R6514	453532294	0,22ohm+/-5%,1/2W,Metal	C5083-C5086	354772209	22uF,63V,Elect.
R6520-R6523	453532294	0,22ohm+/-5%,1/2W,Metal	C5093-C5096	354784709	47uF,50V,Elect.
<b>Terminals</b>			C5103-C5106	374721015	100pF+/-10%,50V,Plastic
P5100A,P5101A	25060301	NTM-1P232(M1700)	C5123-C5126	354794709	47uF,100V,Elect.
P5201A,P5202A	25060301	NTM-1P232(M1700)	C5133-C5136	354794709	47uF,100V,Elect.
<b>Sockets</b>			<b>Resistors</b>		
P5003	2009990666UL	NSAS-12P0929	R5133-R5136	443528214	820ohm+/-5%,1/2W,Metal oxide
P5004	2009990667UL	NSAS-16P0930	R5143-R5146	443528214	820ohm+/-5%,1/2W,Metal oxide
P6008	2009990670AUL	NSAS-14P0933	R5153-R5156	443521034	10kohm+/-5%,1/2W,Metal oxide
P6810	2009990668UL	NSAS-6P0931	R5163-R5166	443521024	1kohm+/-5%,1/2W,Metal oxide
P6812	2009990669UL	NSAS-6P0932	R5173-R5176	443528214	820ohm+/-5%,1/2W,Metal oxide
P6931A	25051230	NSCT-5P1020	R5183-R5186	443523304	33ohm+/-5%,1/2W,Metal oxide
P6952	2009990671UL	NSAS-6P0934	R5233-R5236	443521504	15ohm+/-5%,1/2W,Metal oxide
<b>Plugs</b>			R5243-R5246	443521504	15ohm+/-5%,1/2W,Metal oxide
P6000-P6006	25056009	NPLG-4P0959	R5283-R5286	443521034	10kohm+/-5%,1/2W,Metal oxide
P6010	25056011	NPLG-6P0961	R5303-R5306	443521014	100ohm+/-5%,1/2W,Metal oxide
P6011,P6012	25056009	NPLG-4P0959	R5333-R5336	443521014	100ohm+/-5%,1/2W,Metal oxide
P6013	25056011	NPLG-6P0961	<b>Terminals</b>		
P6014-P6016	25056009	NPLG-4P0959	P5201,P5202	25060302	NTM-1P233(M1969)
P6080-P6086	25055038	NPLG-2P29	<b>Sockets</b>		
<b>Retainer</b>			P6003A-P6006A	25052287	NSCT-4P2184
P6009	27141794	(BUS)	P6013A	25052289	NSCT-6P2186
<b>Bus bars</b>			P6014A-P6016A	25052287	NSCT-4P2184
P6202,P6203	27141753	BBL50	<b>POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-1A/1B)</b>		
P6204,P6208	27141774	BBL75	<b>CIRCUIT NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
P6205-P6207	27141753	BBL50	<b>ICs</b>		
<b>Holders</b>			Q9401	222780155JRC	NJM78M15FA
P6211-P6213	27190540-1	Clamp	Q9411	222790155JRC	NJM79M15FA
P6214	27190608-1	Clamp	Q9421,Q9431	222780054JRC	NJM7805FA
<b>Clamps</b>			Q9441	222790054JRC	NJM7905FA
P6301-P6303	260224	CP-1S	<b>Transistors</b>		
P6305-P6307	260224	CP-1S	Q6901	2215864,	KTC3199-GR,
P9508	27301394	HL-18-0		2212115,	2SC2458-GR,
<b>Heat sinks</b>				2213284 or	2SC1740S-R or
Q6090A-Q6092A	27160486	RAD-155		2213285	2SC1740S-S
<b>Screws</b>			Q9501	2211644	2SA965-Y
Q6090B-Q6092B	838430107	3TTB+10S(BC)	<b>Diodes</b>		
Q6100B-Q6102B	838430107	3TTB+10S(BC)	D9501,D9502	22380285,	RS403M,
<b>POWER AMPLIFIER DRIVER PC BOARD (NAAF-7251-1A/1B)</b>				22380022 or	RBV402 or
<b>CIRCUIT NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>		22380271	D3SBA20
<b>Transistors</b>			D9506,D9507	22380260,	RL1N4003,
Q5003-Q5006	2215896,	* KTC3200-BL,		22380032 or	1SR139-100 or
Q5013-Q5016	2210755,	* 2SC1775A-E,		22380035	GP104003E
	2210756 or	* 2SC1775A-F or	D9508	224473304	MTZJ33D
	2211733	* 2SC1845-E	<b>Capacitors</b>		
Q5023-Q5026	2215896,	KTC3200-BL,	C9401,C9402	394561007	10uF,35V,Elect.
	2210755,	2SC1775A-E,	C9411,C9412	394561007	10uF,35V,Elect.
	2210756 or	2SC1775A-F or	C9421,C9422	394561007	10uF,35V,Elect.
	2211733	2SC1845-E	C9431,C9432	394561007	10uF,35V,Elect.
Q5033-Q5036	2215844,	KTA1024-Y,	C9441,C9442	394561007	10uF,35V,Elect.
Q5043-Q5046	2211353,	2SA949-O,	C9501-C9504	374723344	0,33uF+/-5%,50V,Plastic
	2211354 or	2SA949-Y or	C9505,C9507	354762229S	2200uF,35V,Elect.
	2215843	KTA1024-O	C9506	354761029S	1000uF,35V,Elect.
Q5053-Q5056	2215844,	* KTA1024-Y,	C9508	354744729S	4700uF,16V,Elect.
	2211353,	* 2SA949-O,	C9509	354751029S	1000uF,25V,Elect.
	2211354 or	* 2SA949-Y or	C9510	354772219S	220uF,63V,Elect.
	2215843	* KTA1024-O	C9513	374723344	0,33uF+/-5%,50V,Plastic
			C9521-C9523	374722234	0,022uF+/-5%,50V,Plastic