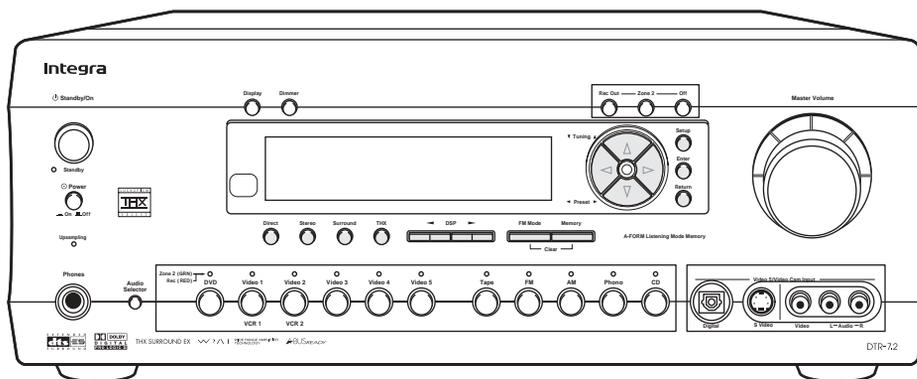


Integra SERVICE MANUAL

AV Amplifier

DTR-7.2



MDD	120V AC, 60Hz
-----	---------------

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle 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

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ADJUSTMENT AND CONFIRMATION PROCEDURES

Idling current adjustment

Before Idling adjustment, turn the trimming resistors R6040,R6041,R6042,R6043,R6044 and R9046 to counter clockwise. Connect the DC voltmeter to sockets P6080,P6081,P6082,P6083,P6084 and 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 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.

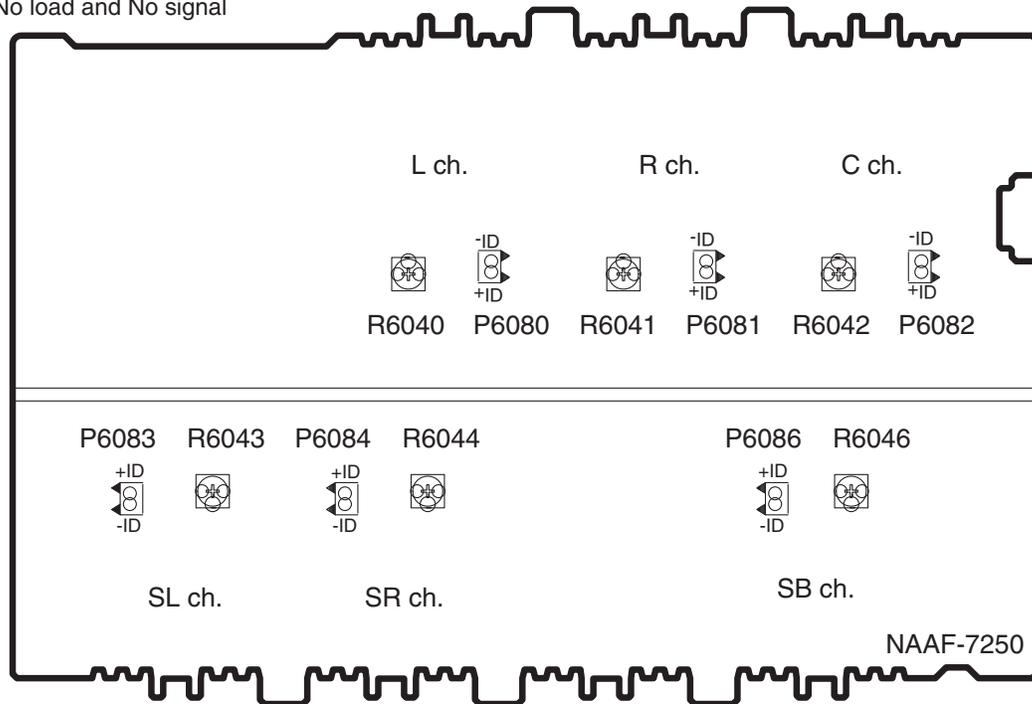
Surround and surround back channels

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

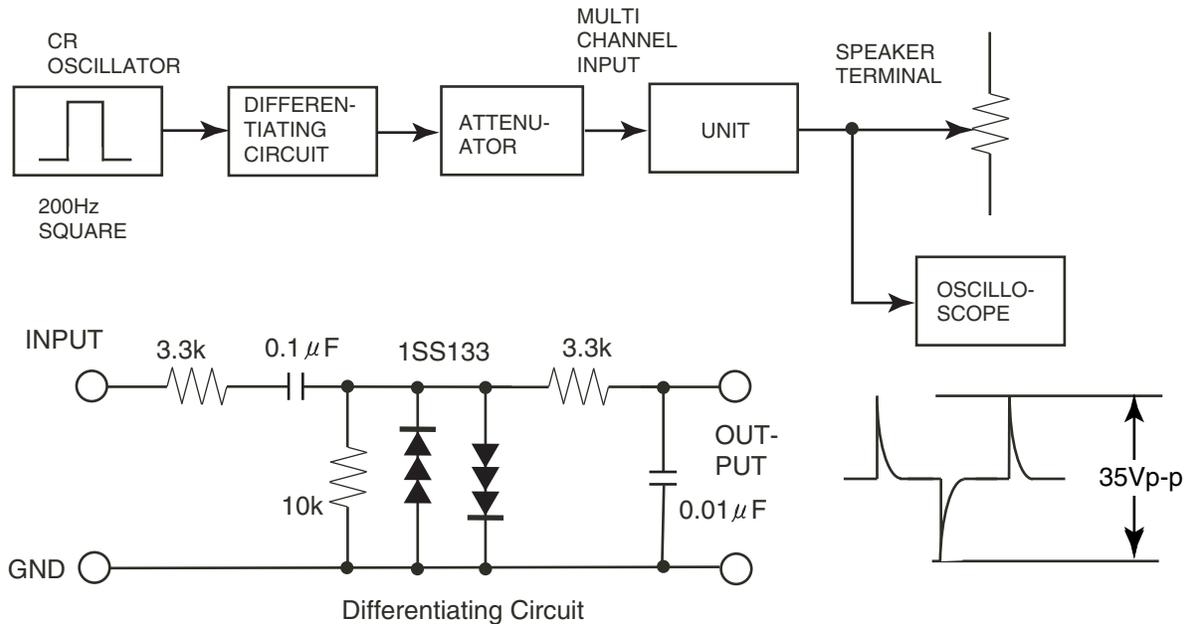
Set the unit to "TEST-1-00".

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.

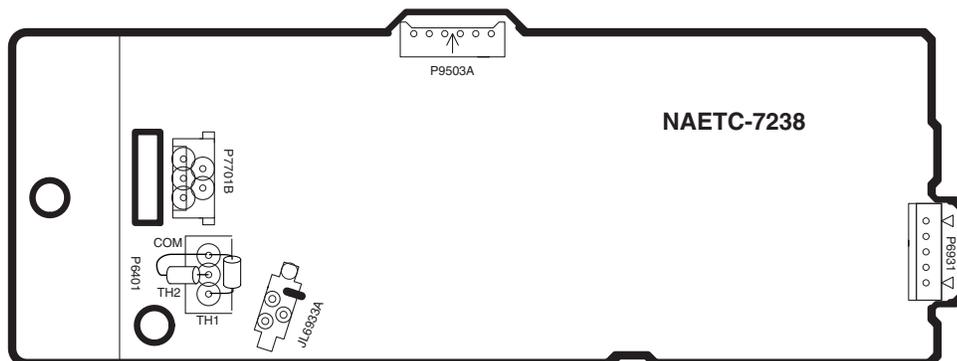
Confirm that the fan rotates slow speed after few seconds.

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.



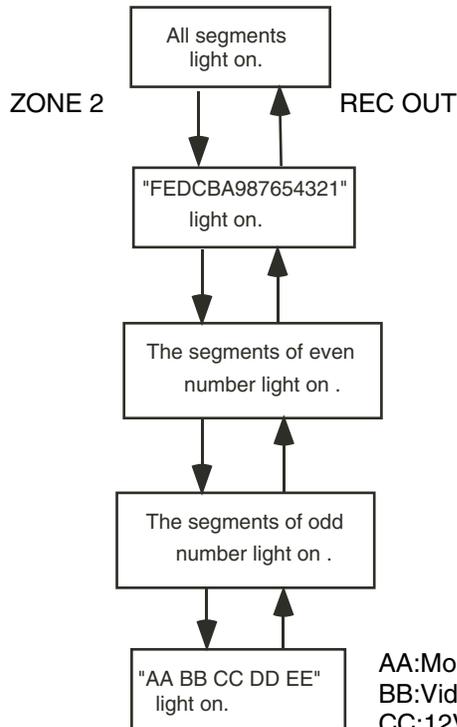
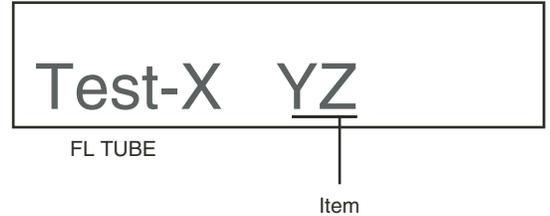
ADJUSTMENT AND CONFIRMATION PROCEDURES 3

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

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.

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

A B C D E

SCHEMATIC DIAGRAM 10

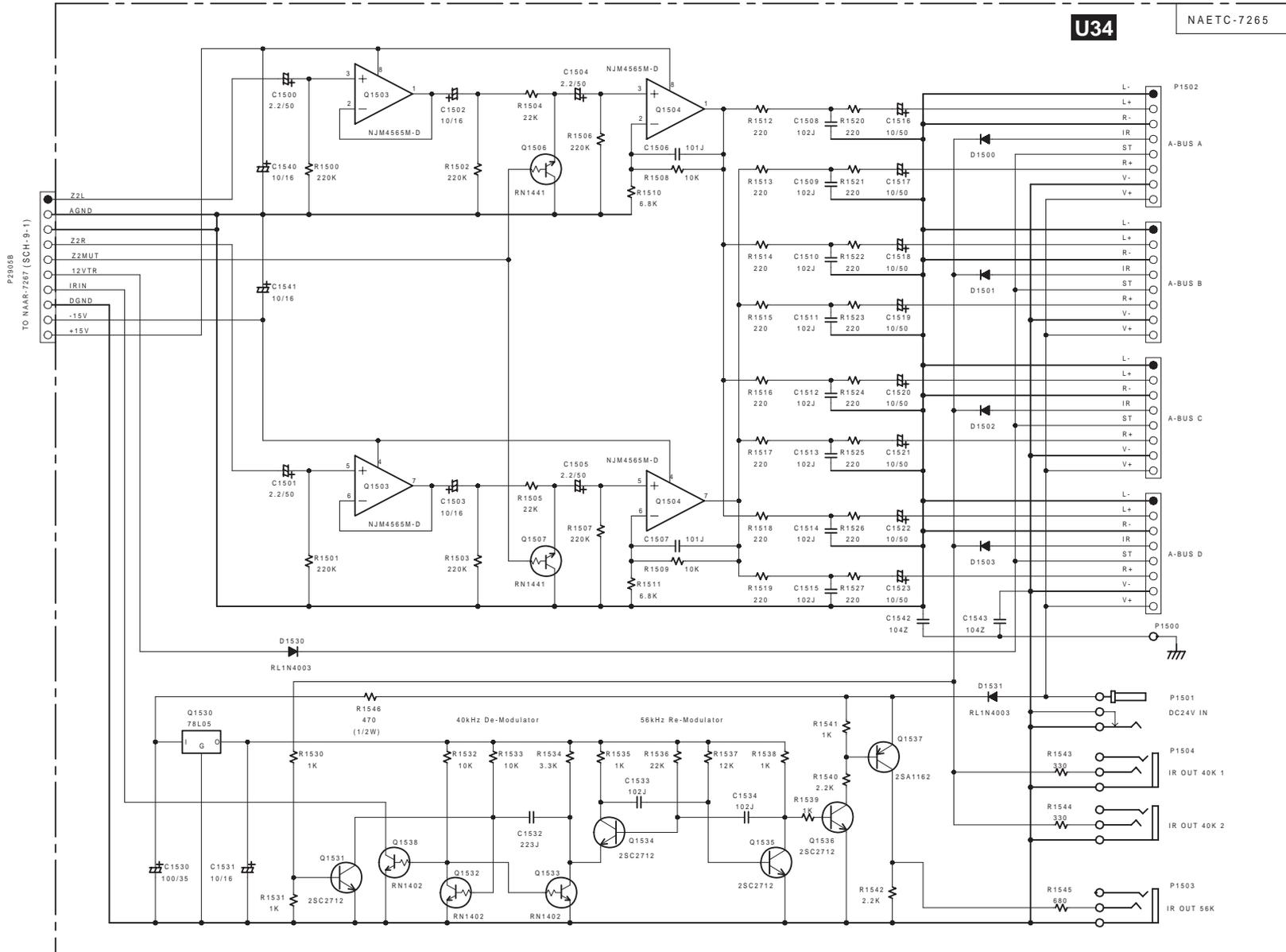
A-bus section

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SCHEMATIC DIAGRAM 9-2

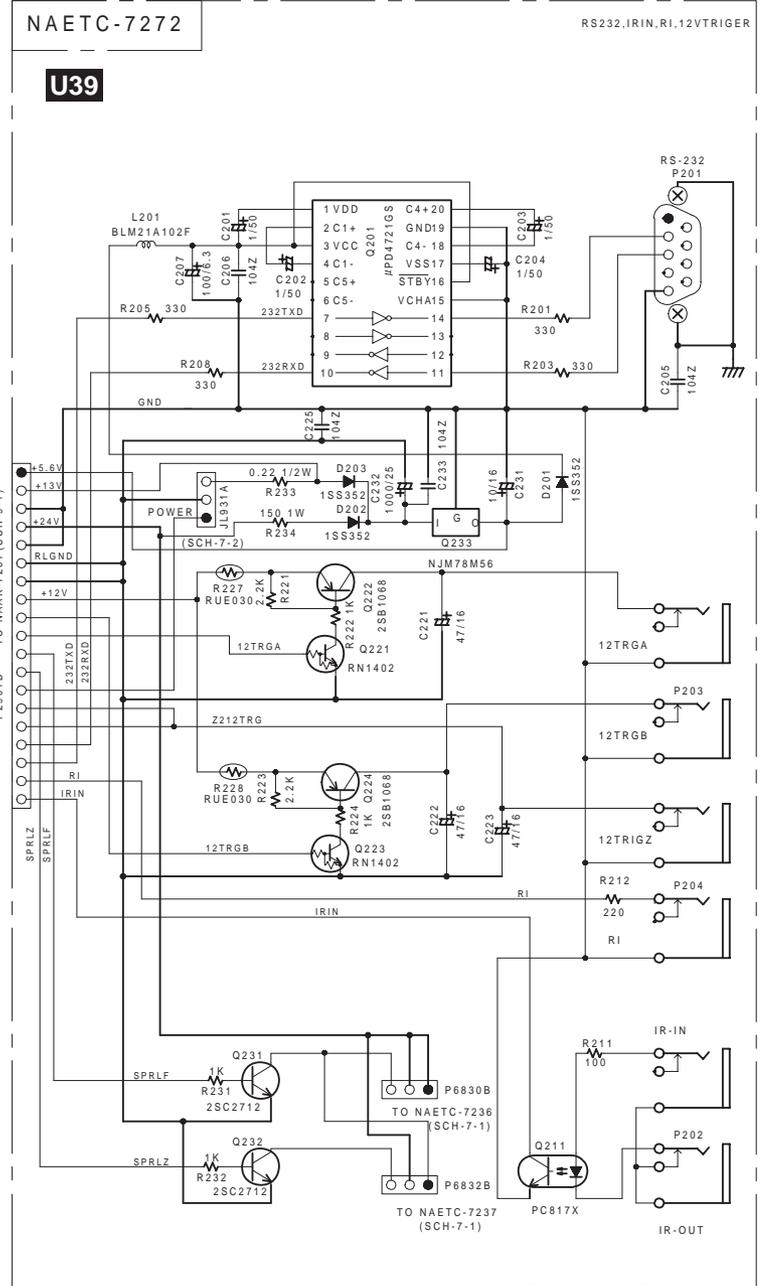
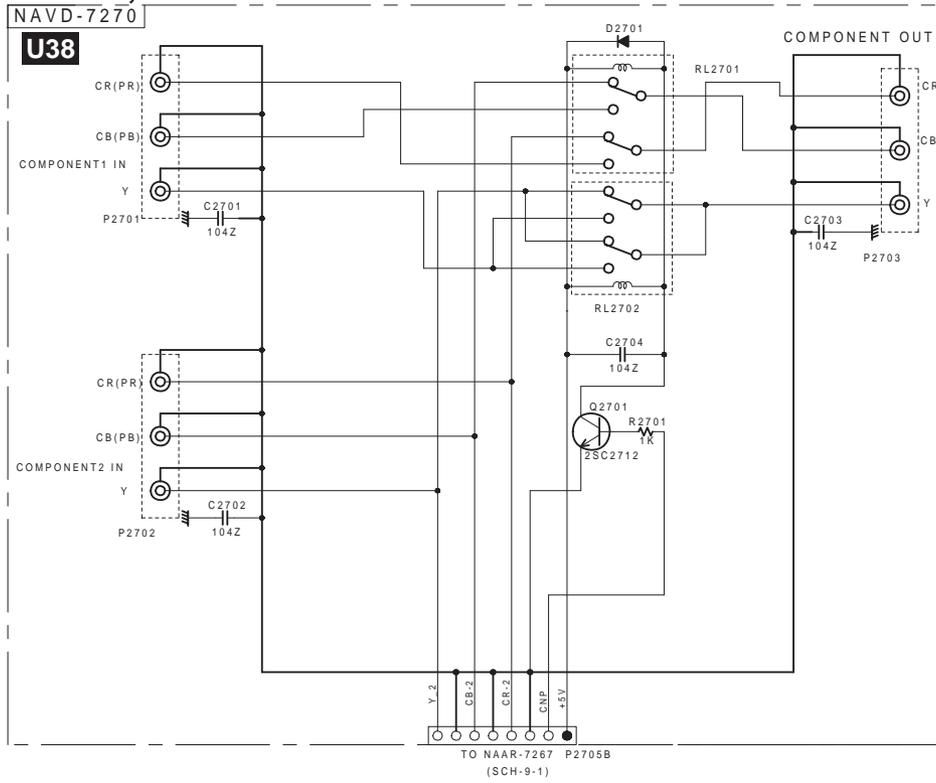
Componet video, & RS-232C sections

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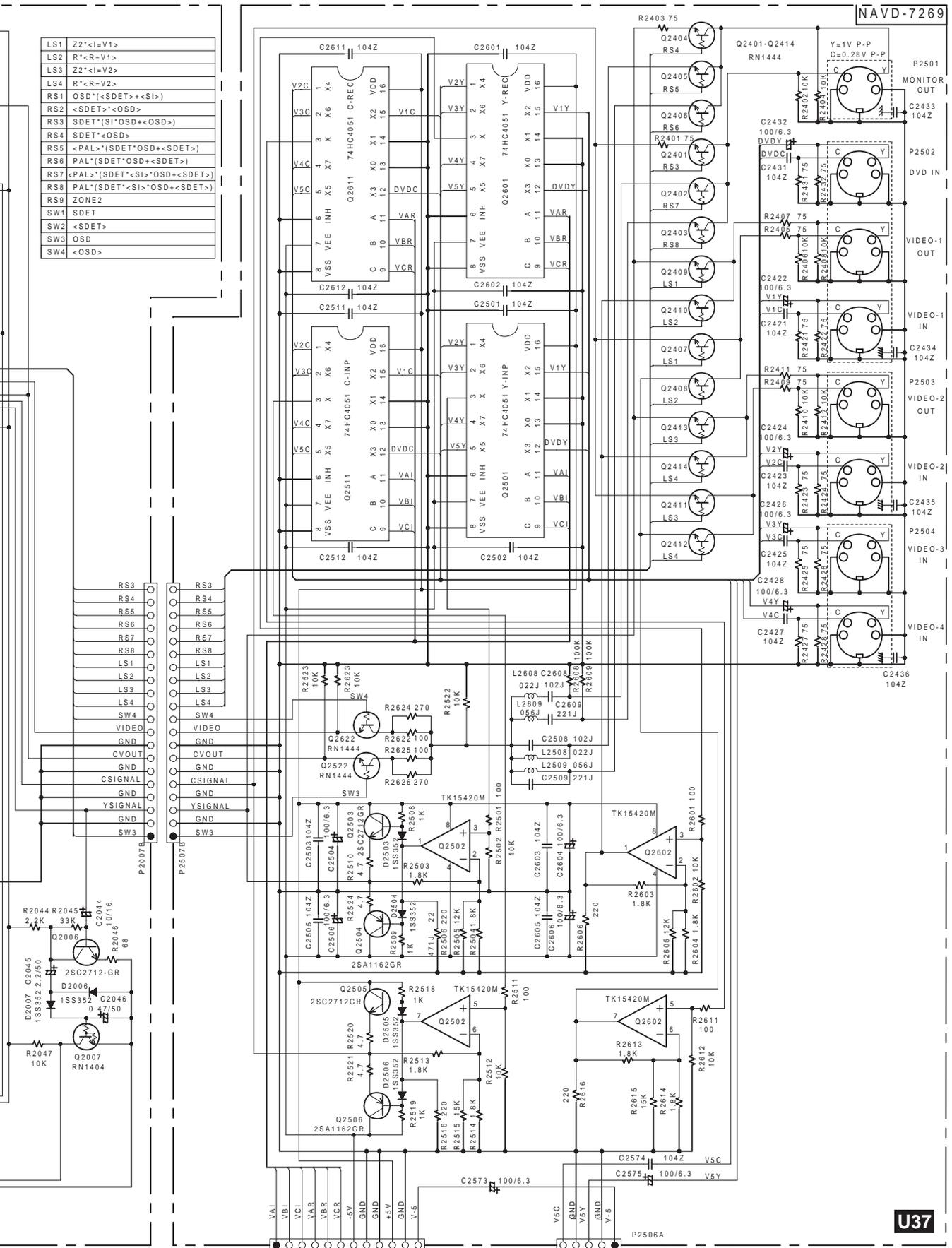
A B C D

SCHEMATIC DIAGRAM 8-2

Video section

LS1	Z2*<l=V1>
LS2	R*<r=V1>
LS3	Z2*<l=V2>
LS4	R*<r=V2>
RS1	OSD*<(SDET*<+<S1>)>
RS2	<SDET*>*<OSD>
RS3	SDET*(S1*OSD*<OSD>)
RS4	SDET*<OSD>
RS5	<PAL*>(SDET*OSD*<SDET>)
RS6	PAL*(SDET*OSD*<SDET>)
RS7	<PAL*>(SDET*<S1>*<OSD*<SDET>)
RS8	PAL*(SDET*<S1>*<OSD*<SDET>)
RS9	ZONE2
SW1	SDET
SW2	<SDET>
SW3	OSD
SW4	<OSD>

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U37

A B C D
SCHEMATIC DIAGRAM 7-2 Power supply section

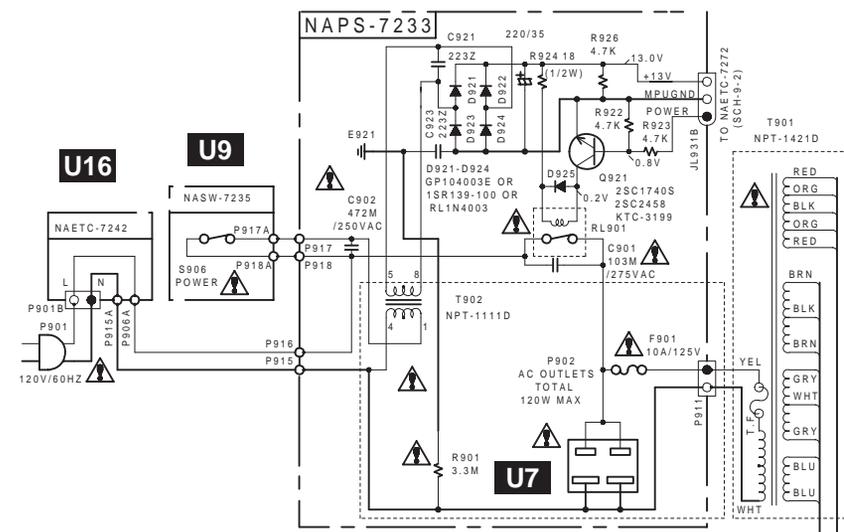
1

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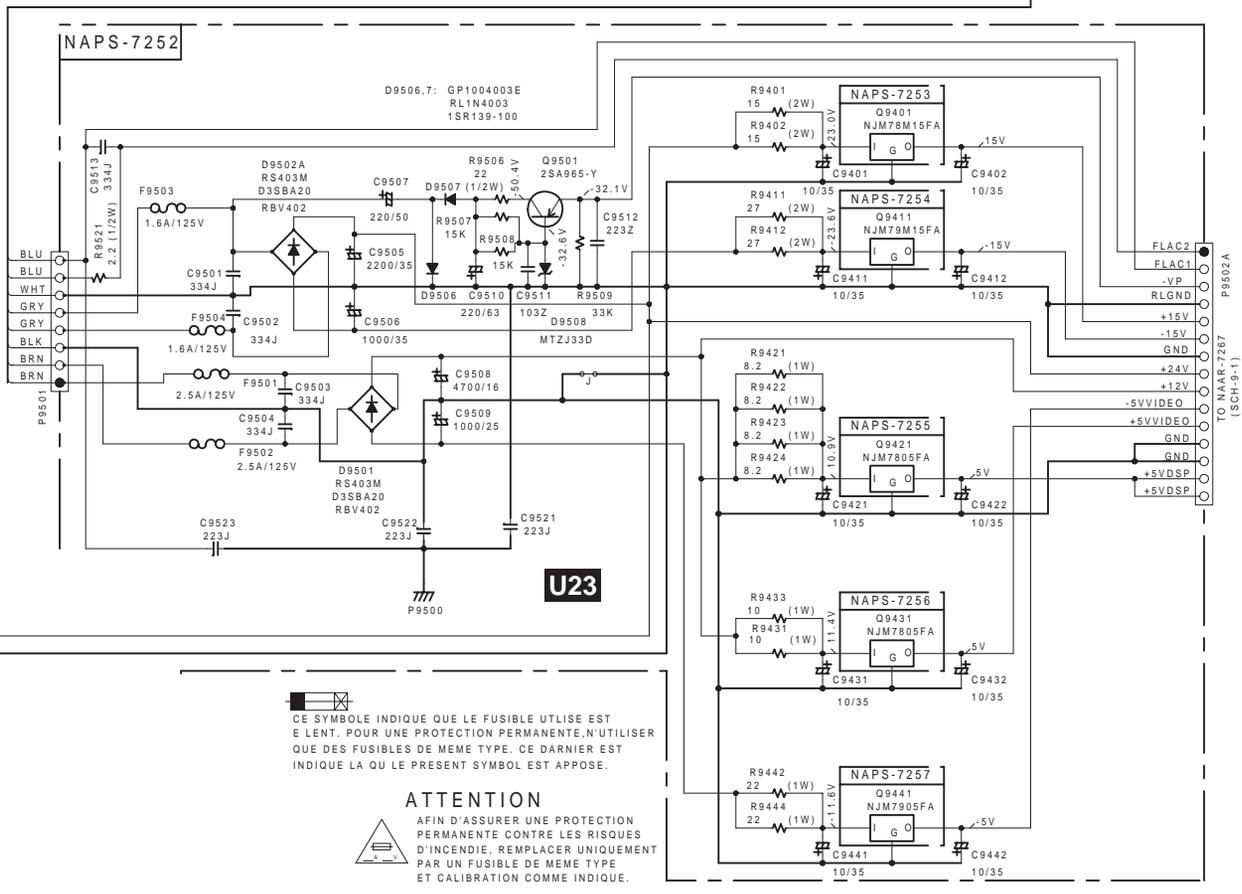
4

5



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

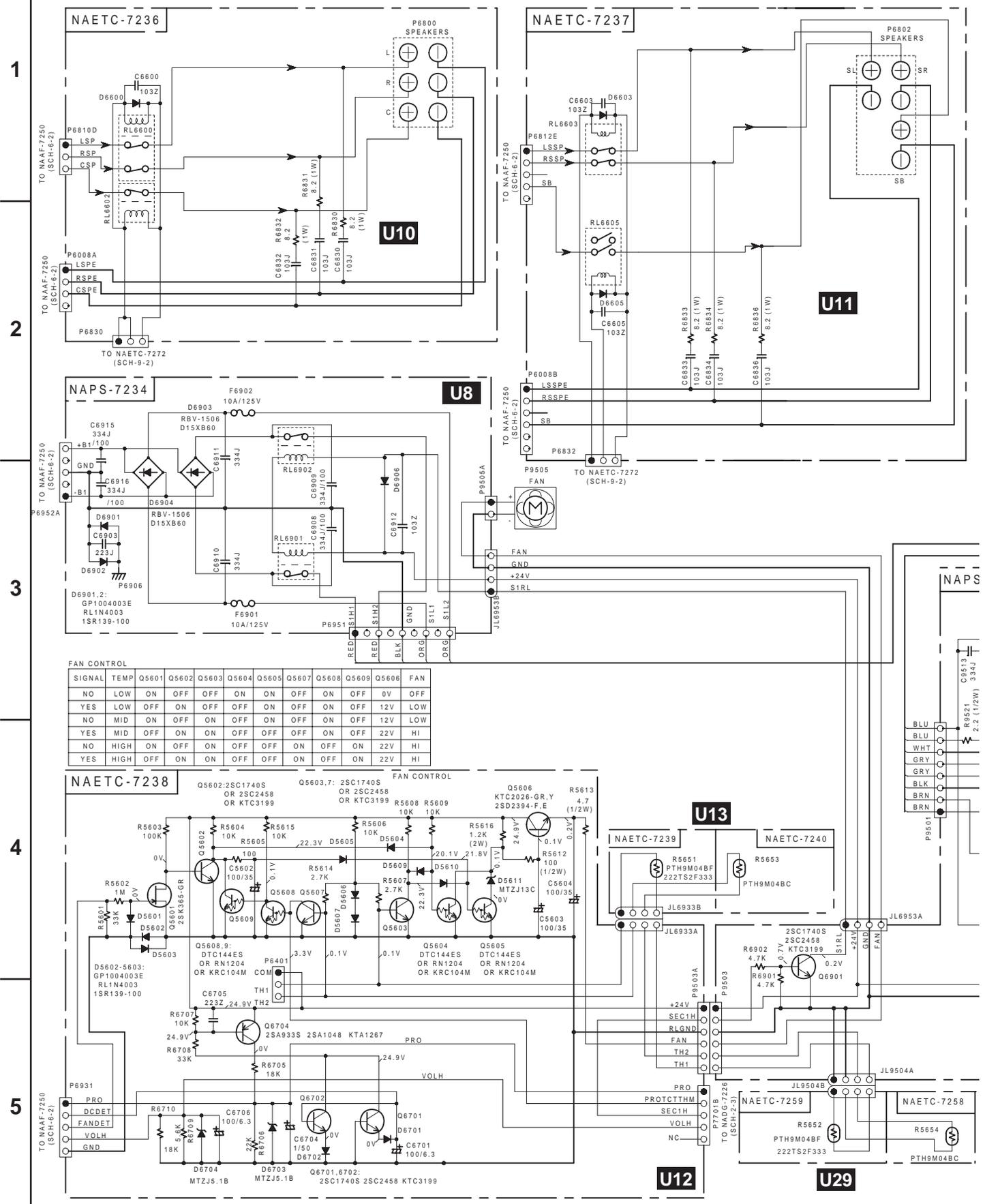
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.



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 QU LE PRESENT SYMBOL 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 7-1 Power supply, Fan control & Speaker terminal sections



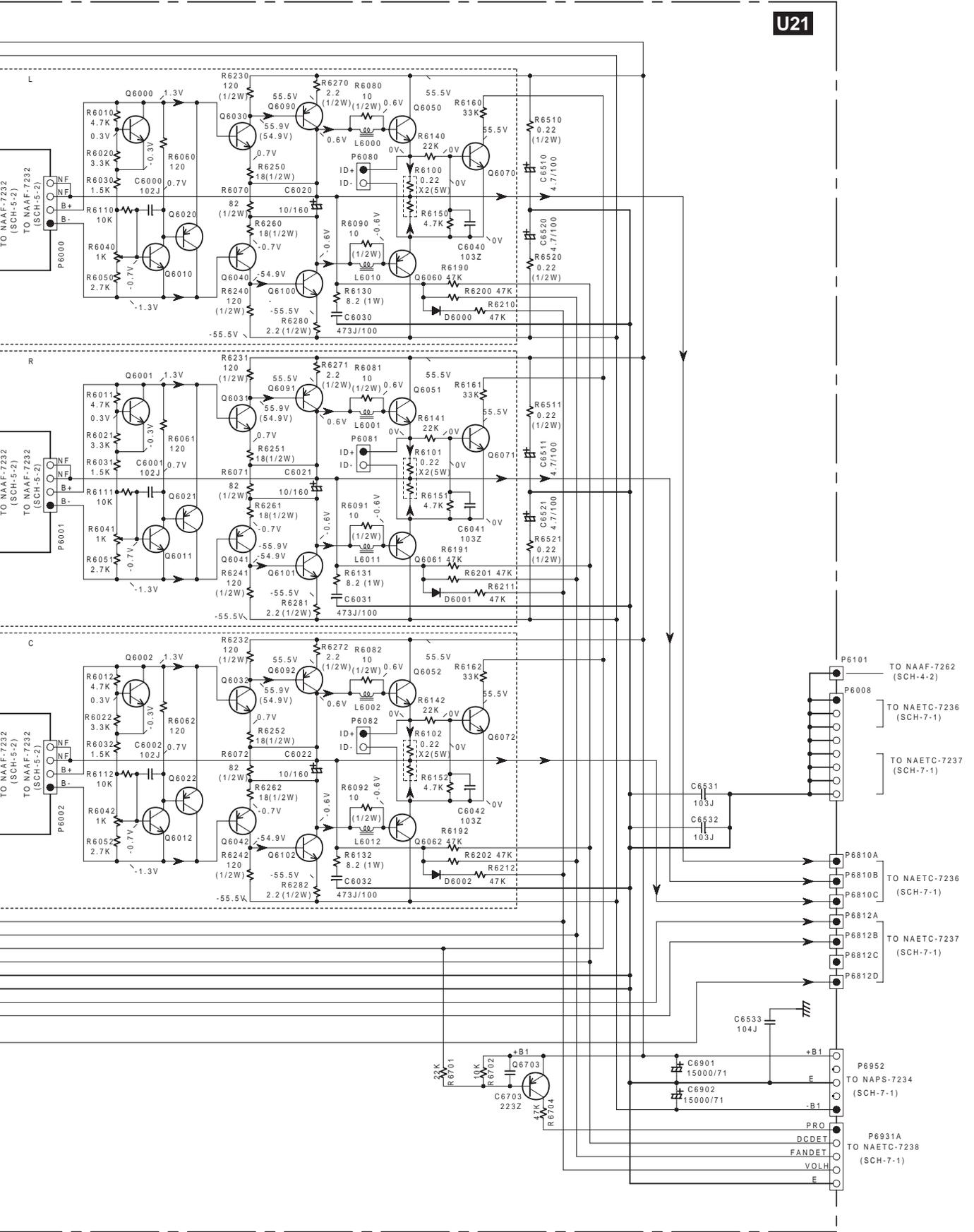
A B C D

SCHEMATIC DIAGRAM 6-2

Power amp.section

U21

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- TO NAAF-7232 (SCH-5-2)
- TO NAAF-7232 (SCH-5-2)
- TO NAAF-7232 (SCH-5-2)
- TO NAETC-7236 (SCH-7-1)
- TO NAETC-7237 (SCH-7-1)
- TO NAETC-7236 (SCH-7-1)
- TO NAETC-7237 (SCH-7-1)
- TO NAPS-7234 (SCH-7-1)
- P6931A TO NAETC-7238 (SCH-7-1)

A

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SCHEMATIC DIAGRAM 5-2

Power amp.section

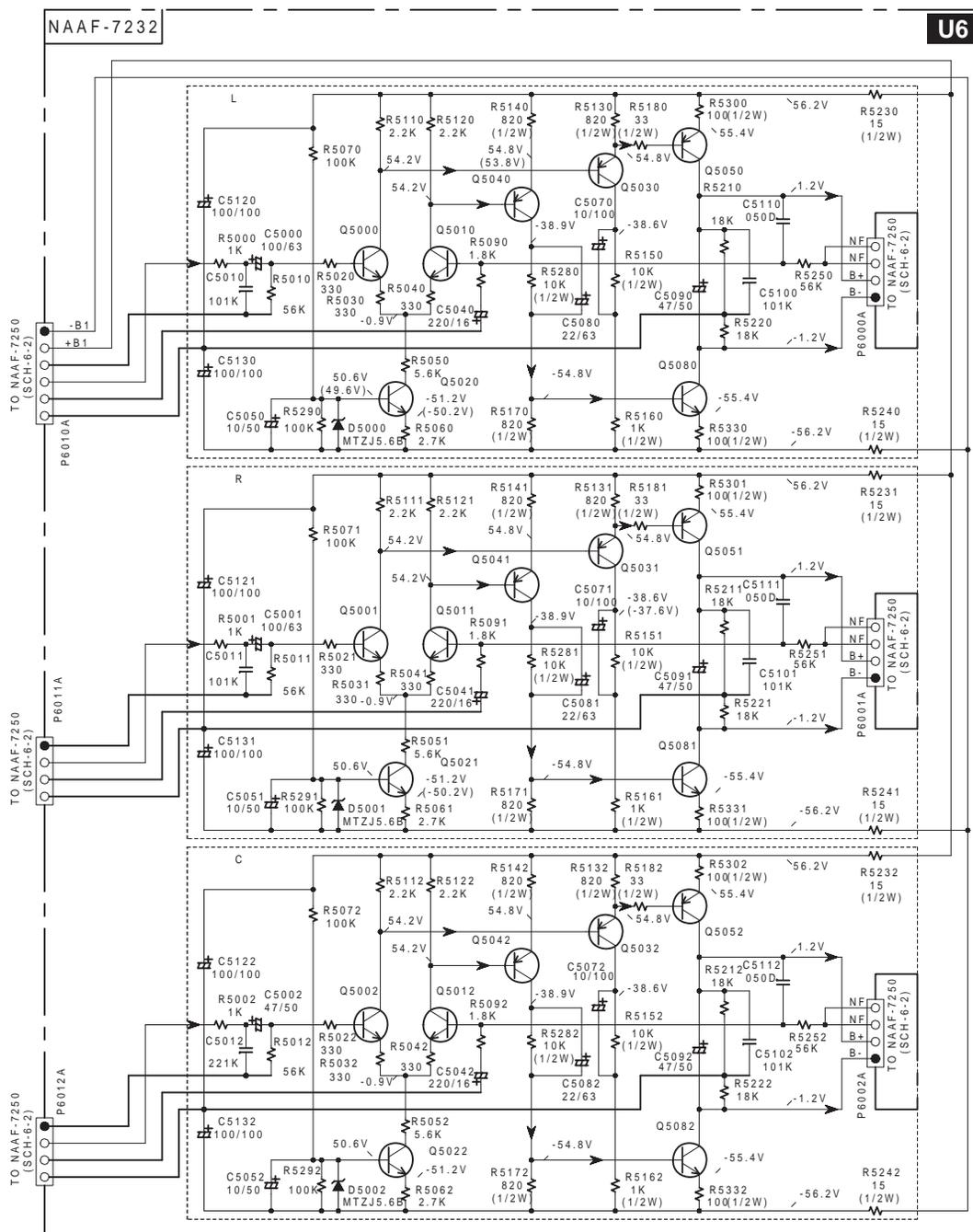
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SEMICONDUCTORS

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

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SCHEMATIC DIAGRAM 5-1

Power amp.section

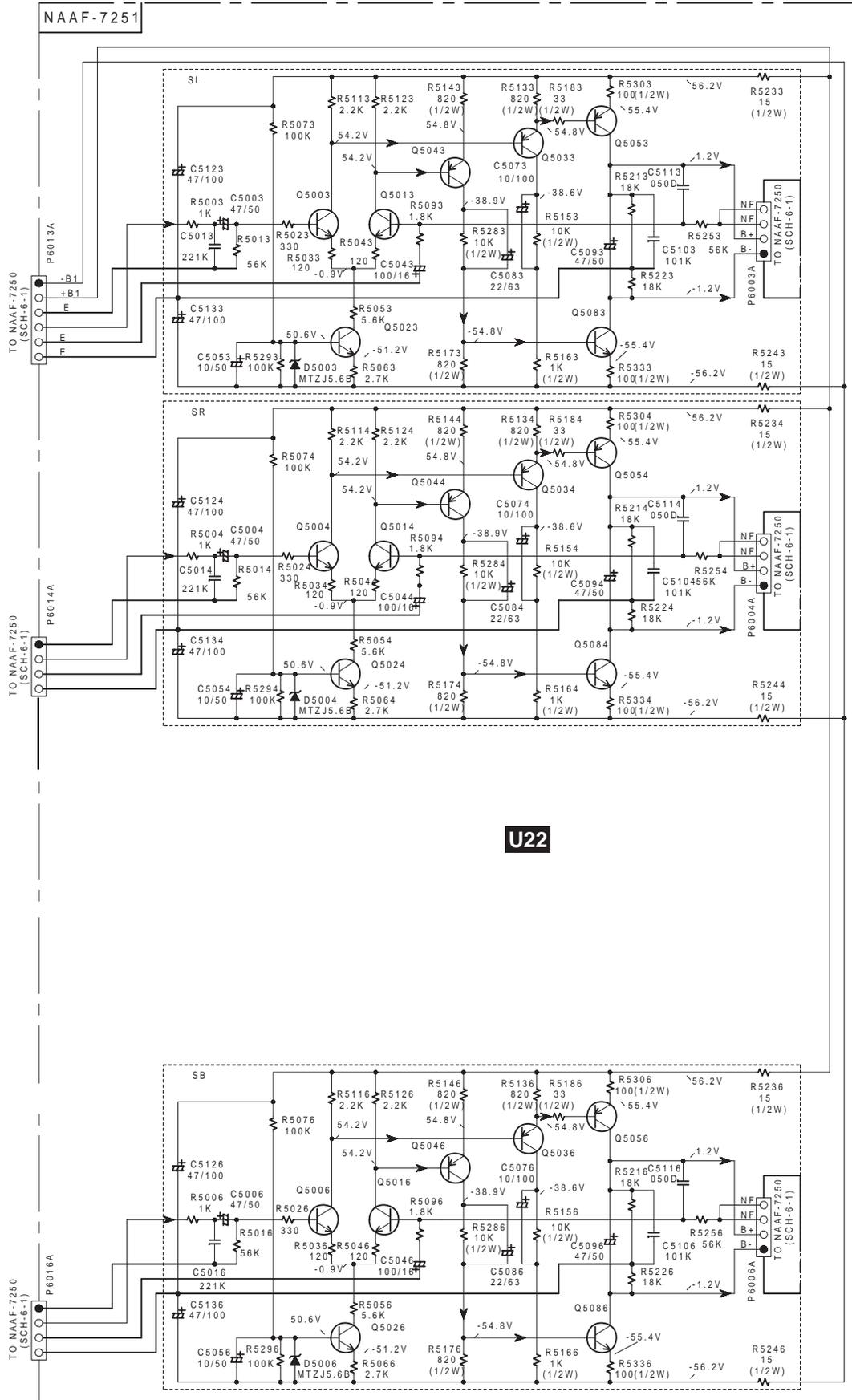
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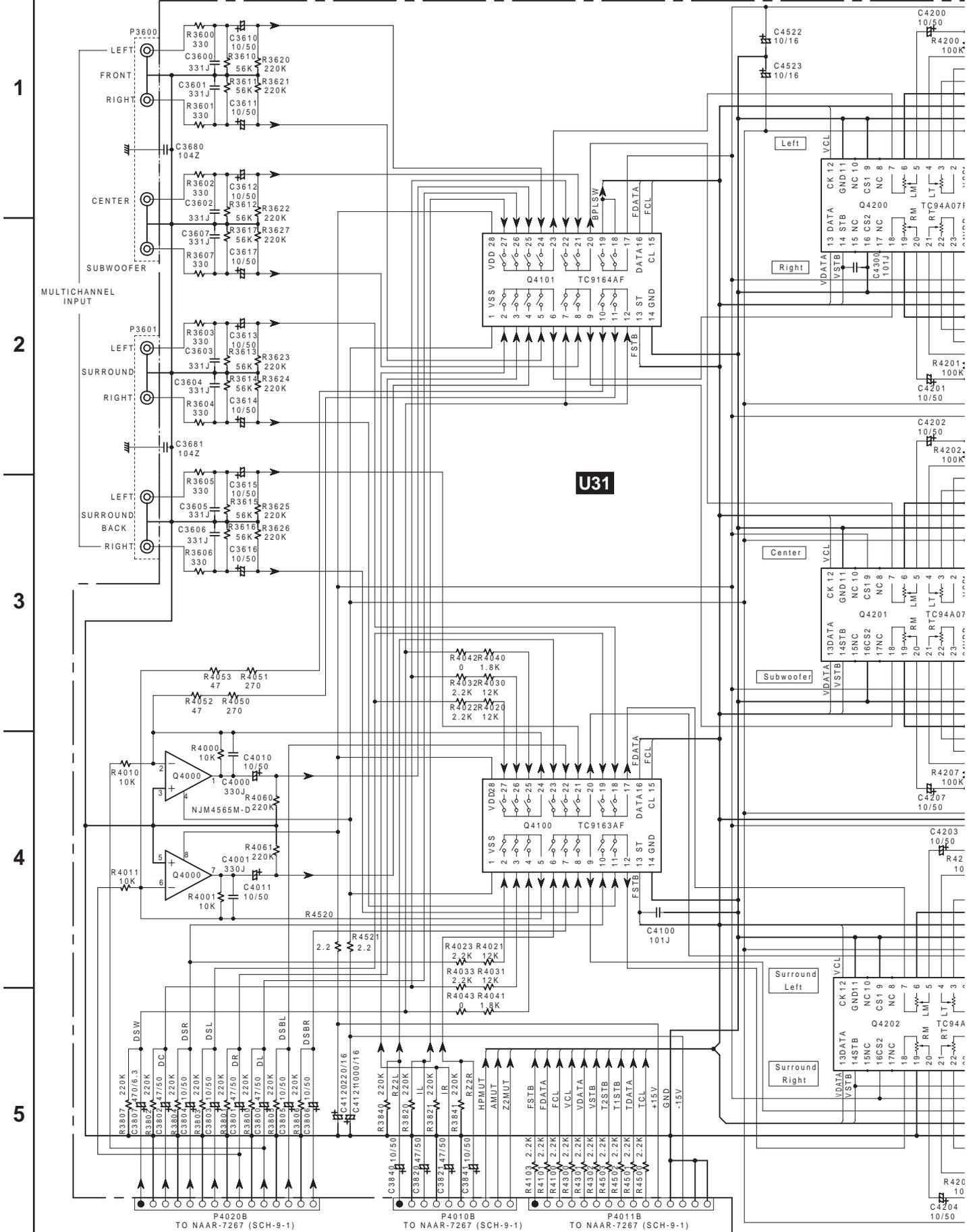
3

4

5



SCHEMATIC DIAGRAM 4-1 Preamplifier section



P4020B TO NAAR-7267 (SCH-9-1)

P4010B TO NAAR-7267 (SCH-9-1)

P4011B TO NAAR-7267 (SCH-9-1)

R4204 10/50

A

B

C

D

SCHEMATIC DIAGRAM 3-2 Audio I/O section

P1010A TO TUNER PACK

NAAF-7263

U32

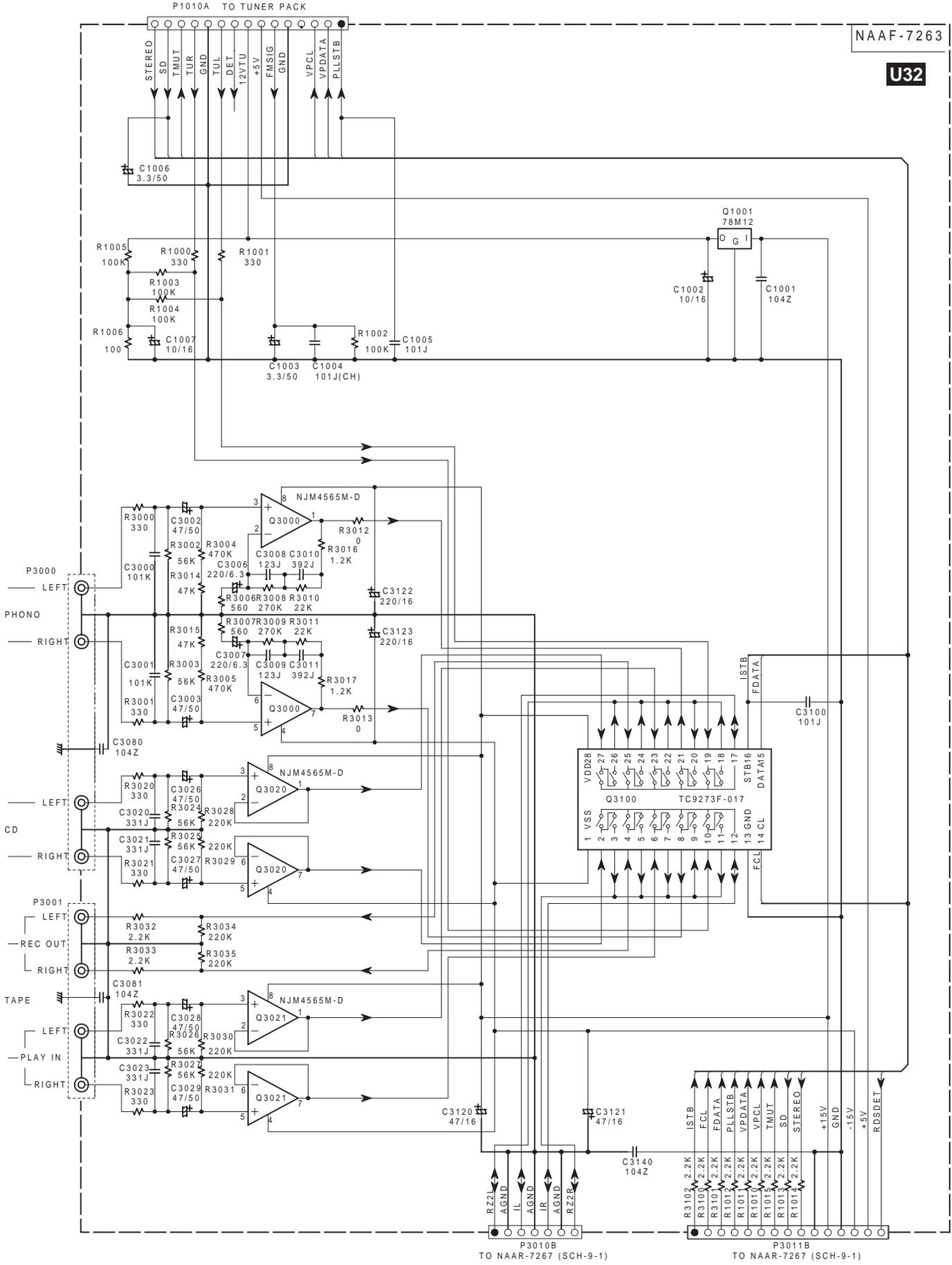
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A

B

C

D

SCHEMATIC DIAGRAM 3-1

Audio I/O section

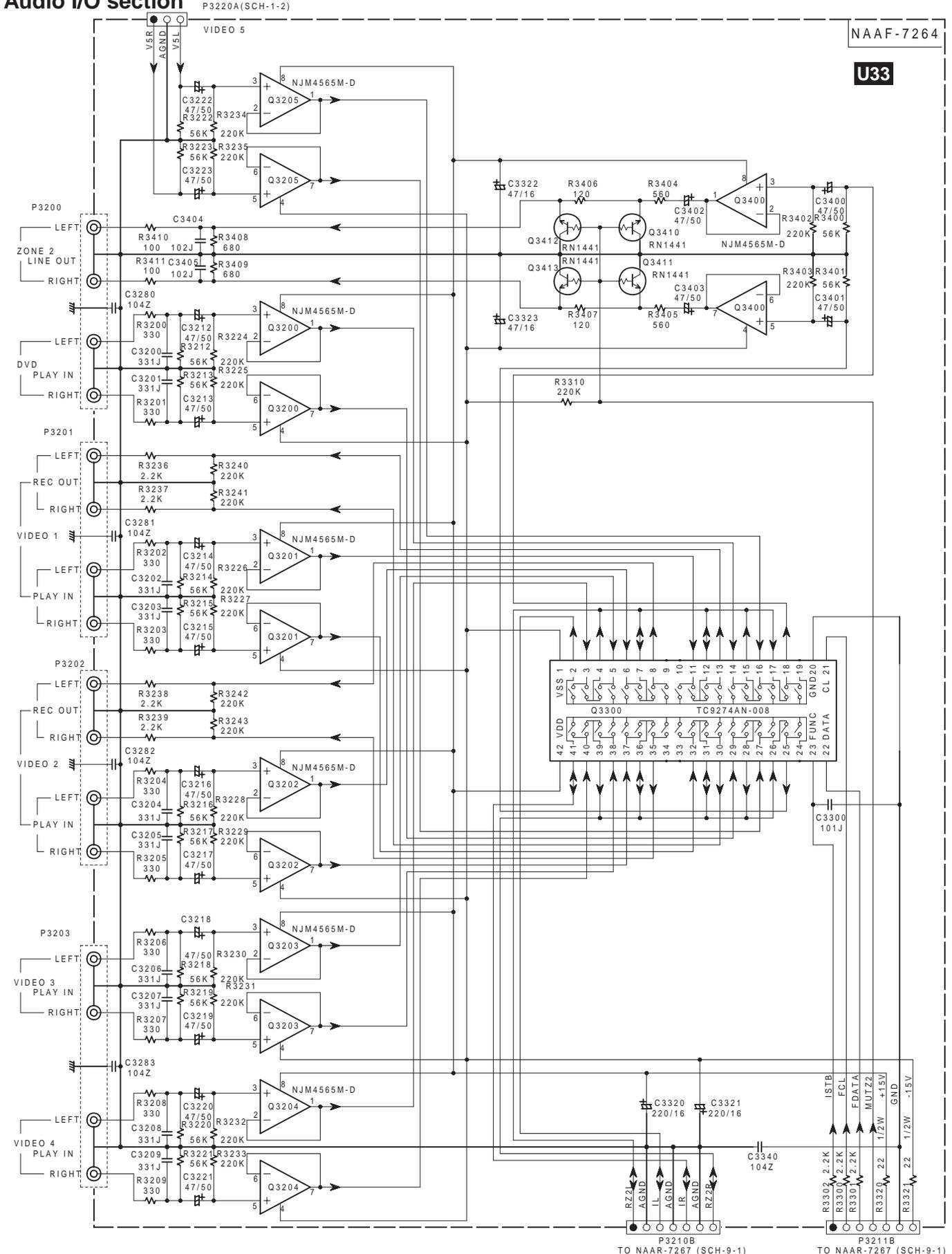
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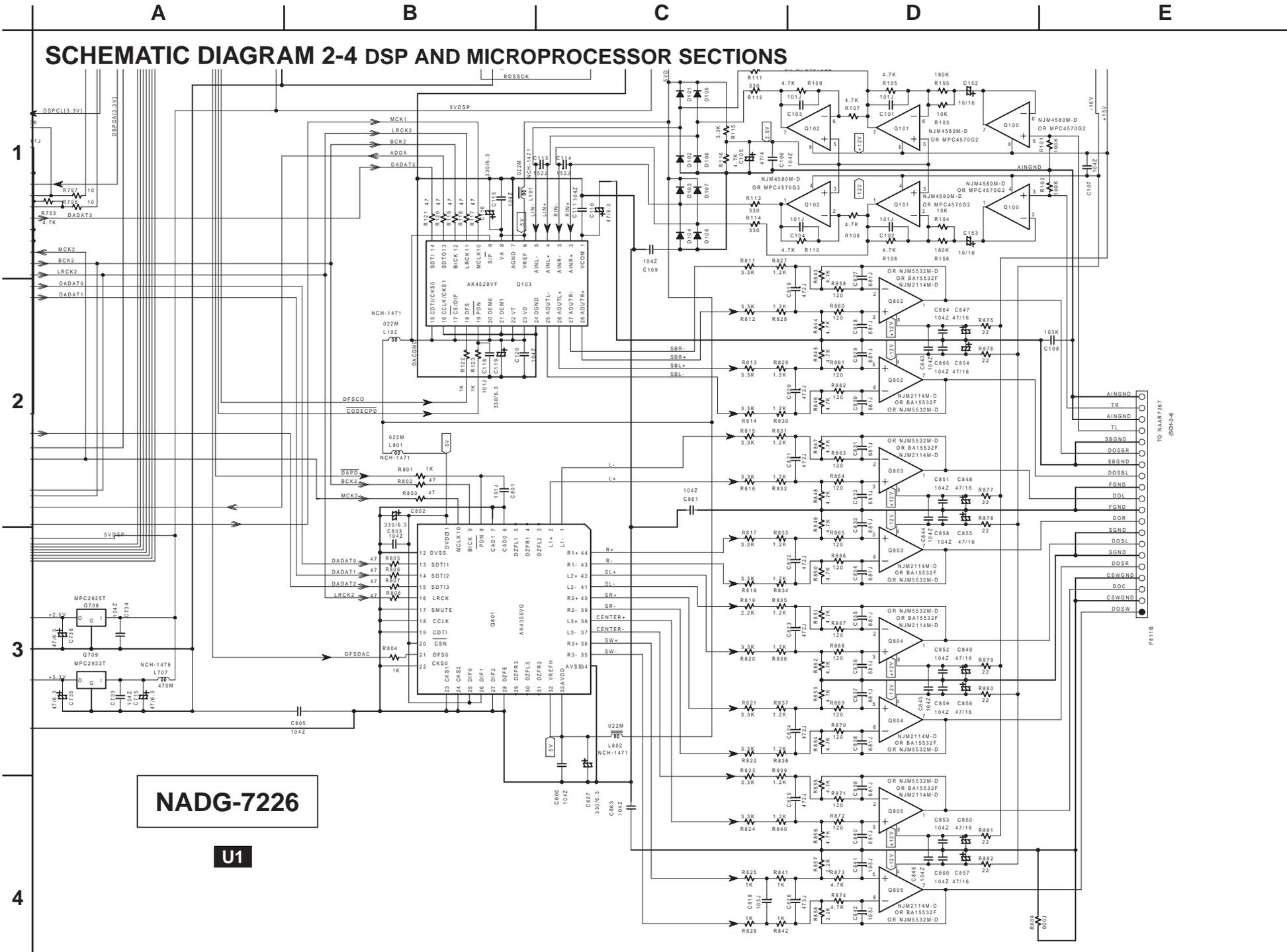
NAAF-7264

U33

P3210B TO NAAR-7267 (SCH-9-1)

P3211B TO NAAR-7267 (SCH-9-1)

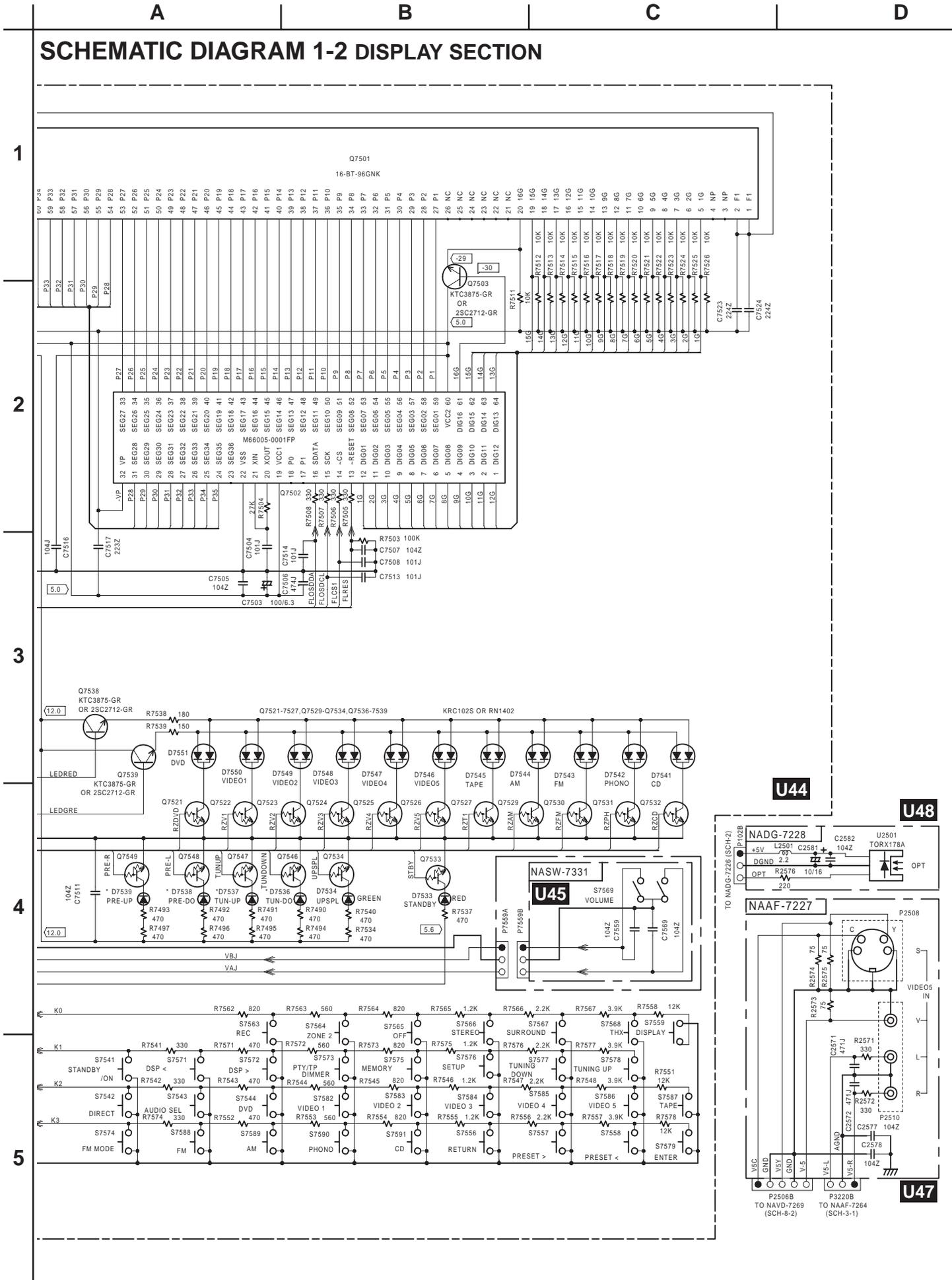
SCHEMATIC DIAGRAM 2-4 DSP AND MICRO-PROCESSOR SECTIONS



NADG-7226

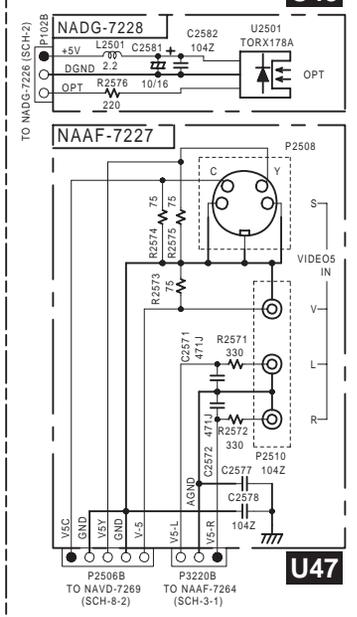
U1

SCHEMATIC DIAGRAM 1-2 DISPLAY SECTION



U44

U48



PRINTED CIRCUIT BOARD-PARTS LIST 1

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

MAIN CIRCUIT PC BOARD (NADG-7226-10)

CIRCUIT NO.	PART NO.	DESCRIPTION
		ICs
Q100-Q102	22241448R2	NJM4580M-D
Q103	22241522R2	AK4528VF
Q104	22241633R3	AK4114VQ
Q105	222740046R2TO	TC74HCU04F
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
		Transistor
Q7702	2216210R2 or 2214490R2	KRC104S or RN1404
		Photo couplers
U101	24120094	TOTX179
U103-U105	24120095	TORX179
		Diodes
D101-D108	223234R2 or	1SS352 or
D7701-D7705	223269R2	1SS355
D7706	224490620R2 or 224550620R2	UDZ6.2B or UDZS6.2B
		Oscillators
X101	3010331R2	HC-49/U03C24,576MHz,Crystal
X701	3010324R2	CSTCV12,2MTJ0C4,Ceramic
X7701	3010329R2	CSTCV16,00MXJ0C,Ceramic
		Coils
L101,L102	231237M022R2	NCH-1471
L103,L104	231237K470R2	NCH-1479
L105	231237M022R2	NCH-1471
L106,L107	230958R1	BK1608LM182-T
L108,L109	231237M022R2	NCH-1471
L701,L702	231237M022R2	NCH-1471
L703,L707	231237K470R2	NCH-1479
L704	231237M022R2	NCH-1471
L705,R729	230958R1	BK1608LM182-T
L751,L752	231237M022R2	NCH-1471
L753	231237K470R2	NCH-1479
L7701	231237K220R2	NCH-1477
L801,L802	231237M022R2	NCH-1471
		Capacitors
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.
C706,C716	3567A1019R2	100uF,4V,Elect.
C715	356724709R2	47uF,6.3V,Elect.

CIRCUIT NO. PART NO. DESCRIPTION

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.
		Terminal
P101	25045624	NPJ-3PDO431
		Sockets
P7701A	25052277R2	NSCT-5P2174
P7703B,P811B	25051241	NSCT-20P1031
P7704B	25051233	NSCT-8P1023
P7705B	25051240	NSCT-15P1030
		Plug
P102AA	25055133	NPLG-3P117
		Cushion
Q801A	28141445	(DAC)

F/C DRIVER CIRCUIT PC BOARD (NAAF-7232-1T)

CIRCUIT NO. PART NO. DESCRIPTION

		Transistors
Q5000-Q5002	2215896,	*KTC3200-BL,
Q5010-Q5012	2210755, 2210756 or 2211733	*2SC1775A-E, *2SC1775A-F or *2SC1845-E
Q5020-Q5022	2215896, 2210755, 2210756 or 2211733	KTC3200-BL, 2SC1775A-E, 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
		Diodes
D5000-D5002	224470562	MTZJ5.6B
		Capacitors
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.
		Resistors
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

PRINTED CIRCUIT BOARD-PARTS LIST 2

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
P5100,P5101	25060302	NTM-1P233(M1969)	F6901A,F6901B	25052133	NSCT-1P2031
P6000A-P6002A	25052287	NSCT-4P2184	F6902A,F6902B	25052133	NSCT-1P2031
P6010A	25052289	NSCT-6P2186	JL6953B	25050268	NSCT-4P96
P6011A,P6012A	25052287	NSCT-4P2184	P6401	25055042	NPLG-3P32
PRIMARY CIRCUIT PC BOARD (NAPS-7233-1T)			P6951	25055172	NPLG-9P156
CIRCUIT NO.	PART NO.	DESCRIPTION	P6952A	25055168	NPLG-5P152
Q921	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S	P9505A	25055600	NPLG-2P568
D921-D924	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E	D6903A	27160483	RAD-152
D925	223163, 223205 or 223222	1SS133, 1SS270A or WG713A	D6903B,D6904B	82143010	3P+10FN(BC)
T902	2300670A	△ NPT-1111D	D6903C,D9604C	871430	SW-3(BC)
C901	3500196S	△ RE275V-103M	POWER SWITCH PC BOARD (NASW-7235-1T)		
C902	3300030	△ DE1307E472M-KH	CIRCUIT NO.	PART NO.	DESCRIPTION
C922	354762219	220uF,35V,Elect.	S906	25035636	△ NPS-111-L590P,Push switch
R901	431533355	△ RC1/2GFKUL-3.3M	SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1T)		
R924	443521804	18ohm+/-5%,1/2W,Metal oxide	CIRCUIT NO.	PART NO.	DESCRIPTION
RL901	25065584, 25065516 or 25065588	△ NRL-1P10A-DC12-140, △ NRL-1P10A-DC12-097 or △ NRL-1P10A-DC12-143	D6600	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
P902	25051126	△ NSCT-4P913	C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic
F901	252196	△ 10A-UL, Fuse	R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal
F901A,F901B	25052133	△ NSCT-1P2031	RL6600,RL6602	25065563, 25065517 or 25065586	NRL-2P5A-DC24-129, NRL-2P5A-DC24-098 or NRL-2P5A-DC24-142
JL931B	25050267	NSCT-3P95	P6800	25060309	NTM-6PDMN240
P911	25055675 or 25056028	NPLG-2P631 or NPLG-2P0978	P6008A	25055167	NPLG-4P151
RECTIFIER CIRCUIT PC BOARD (NAPS-7234-1T)			P6810D	25055166	NPLG-3P150
CIRCUIT NO.	PART NO.	DESCRIPTION	P6830	25055734	NPLG-3P690
D6901,D6902	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E	SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1T)		
D6903,D6904	22380309 or 22380044	D15XB60 or RBV-1506	CIRCUIT NO.	PART NO.	DESCRIPTION
D6906	223163, 223205 or 223222	1SS133, 1SS270A or WG713A	D6603,D6605	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
C6903	374722234	0.022uF+/-5%,50V,Plastic	C6833,C6834	374731034	0.01uF+/-5%,100V,Plastic
C6908-C6911	374733344	0.33uF+/-5%,100V,Plastic	C6836	374731034	0.01uF+/-5%,100V,Plastic
C6915,C6916	374733344	0.33uF+/-5%,100V,Plastic	R5613	453530474	4.7ohm+/-5%,1/2W,Metal
RL6901,RL6902	25065584, 25065516 or 25065588	NRL-1P10A-DC12-140, NRL-1P10A-DC12-097 or NRL-1P10A-DC12-143	R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
F6901,F6902	252199	10A-UL, Fuse	RL6603,RL6605	25065563, 25065517 or 25065586	NRL-2P5A-DC24-129, NRL-2P5A-DC24-098 or NRL-2P5A-DC24-142
			P6802	25060309	NTM-6PDMN240
			P6008B	25055169	NPLG-6P153
			P6812E	25055168	NPLG-5P152
			P6832	25055734	NPLG-3P690
			P6931	25055701	NPLG-5P657

PRINTED CIRCUIT BOARD-PARTS LIST 3

FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1T)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q5601	2212445	2SK365-GR
Q5602,Q5603	2215864,	KTC3199-GR,
Q5607,Q6701	2212115,	2SC2458-GR,
Q6702	2213284 or 2213285	2SC1740S-R or 2SC1740S-S
Q5604,Q5605	2215820,	KRC104M,
Q5608,Q5609	221282 or 2213560	DTC144ES or RN1204
	Transistors	
Q5606	2203595, 2202705, 2202706 or 2203594	KTC2026-GR, 2SD2394-E, 2SD2394-F or KTC2026-Y
Q6704	2215995, 2212125, 2213354 or 2213355	KTA1267-GR, 2SA1048-GR, 2SA933S-R or 2SA933S-S
	Diodes	
D5601	223163,	1SS133,
D5604-D5607	223205 or	1SS270A or
D5609,D5610	223222	WG713A
D5602,D5603	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D5611	224471303	MTZJ13C
D6701,D6702	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
D6703,D6704	224470512	MTZJ5.1B
	Capacitors	
C5602-C5604	354761019	100uF,35V,Elect.
C6701,C6706	354761019	100uF,6.3V,Elect.
C6704	354780109	1uF,50V,Elect.
	Resistors	
R5612	443521014	100ohm+/-5%,1/2W,Metal oxide
R5616	441721224	1.2kohm+/-5%,2W,Metal oxide
	Sockets	
P7701B	25052201, 25051271, 25051812 or 25052014	NSCT-5P2098, NSCT-5P1060, NSCT-5P1599 or NSCT-5P1801
P9503A	25051231	NSCT-6P1021
JL6933A	25051088	NSCT-4P875

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7239-1T)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5651	4000153	PTH9M04BF222TS2F333
R5653	4000150	PTH9M04BC222TS2F333
	Socket	
JL6933B	25051088	NSCT-4P875

AC INLET TERMINAL PC BOARD (NAETC-7242-1T)

CIRCUIT NO.	PART NO.	DESCRIPTION
	AC inlet	
P901B	25055960	NPLG-2P913

POWER AMPLIFIER DRIVER PC BOARD (NAAF-7250-2C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q6000-Q6006	2213284 or	2SC1740S-R or
Q6010-Q6014	2213285	2SC1740S-S
Q6016	2213284 or 2213285	2SC1740S-R or 2SC1740S-S
Q6020-Q6022	2215995, 2212125, 2213354 or 2213355	KTA1267-GR, 2SA1048-GR, 2SA933S-R or 2SA933S-S
Q6023,Q6024	2211455 or	2SA1015-GR or
Q6026	2211454	2SA1015-Y
Q6030-Q6032	2215854, 2211633, 2211634 or 2215853	KTC3206-Y, 2SC2229-O, 2SC2229-Y or KTC3206-O
Q6033,Q6034	2203434 or	KTD2061-Y or
Q6036	2203010	2SC5171
Q6040-Q6042	2215844, 2211353, 2211354 or 2215843	KTA1024-Y, 2SA949-O, 2SA949-Y or KTA1024-O
Q6043-Q6044	2203424 or	KTB1369-Y or
Q6046	2203000	2SA1930
Q6050-Q6054	2202823 or	*2SC5200-O or
Q6056	2202822	*2SC5200-R
Q6060-Q6064	2202813 or	*2SA1943-O or
Q6066	2202812	*2SA1943-R
Q6070-Q6074	2214984 or	2SC2631-R or
Q6076	2214985	2SC2631-S
Q6090-Q6092	2203424 or 2203000	KTB1369-Y or 2SA1930
Q6100-Q6102	2203434 or 2203010	KTD2061-Y or 2SC5171
Q6703	2215885, 2211792, 2211793 or 2215886	KTA1268-GR, 2SA992-F, 2SA992-E or KTA1268-BL
	Diodes	
D6000-D6004	223163,	1SS133,
D6006	223205 or 223222	1SS270A or WG713A
	Cores	
L6000-L6002	5597-45502	
L6010-L6012	5597-45502	
	Capacitors	
C6000-C6004	374721024	1000pF+/-5%,50V,Plastic
C6006	374721024	1000pF+/-5%,50V,Plastic
C6020-C6022	394501007	10uF,160V,Elect.
C6023,C6024	354784709	47uF,50V,Elect.
C6026	354784709	47uF,50V,Elect.
C6030-C6034	374734734	0.047uF+/-5%,100V,Plastic
C6036	374734734	0.047uF+/-5%,100V,Plastic
C6510-C6514	354790479	4.7uF,100V,Elect.
C6520-C6523	354790479	4.7uF,100V,Elect.
C6531,C6532	374721034	0.01uF+/-5%,50V,Plastic
C6533	374721044	0.1uF+/-5%,50V,Plastic
C6901,C6902	3504374	15000uF,71V,Elect.
	Resistors	
R6040-R6044	5210258	N06HR1KBC,Trimming
R6046	5210258	N06HR1KBC,Trimming
R6070-R6072	443528204	82ohm+/-5%,1/2W,Metal oxide
R6073,R6074	443521814	180ohm+/-5%,1/2W,Metal oxide
R6076	443521814	180ohm+/-5%,1/2W,Metal oxide
R6080-R6082	443521004	10ohm+/-5%,1/2W,Metal oxide
R6083,R6084	453530224	2.2ohm+/-5%,1/2W,Metal
R6086	453530224	2.2ohm+/-5%,1/2W,Metal

PRINTED CIRCUIT BOARD-PARTS LIST 4

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors			Transistors	
R6090-R6092	443521004	10ohm+/-5%,1/2W,Metal oxide	Q5053,Q5054	2215844,	*KTA1024-Y,
R6093,R6094	453530224	2.2ohm+/-5%,1/2W,Metal	Q5056	2211353,	*2SA949-O,
R6096	453530224	2.2ohm+/-5%,1/2W,Metal		2211354 or	*2SA949-Y or
R6100-R6104	4000201,	RF-5EGKR22,		2215843,	*KTA1024-O
R6106	4000132 or	RGC55 0.22 or	Q5083,Q5084	2215854,	*KTC3206-Y,
	4500245	BPR55FK0.22, Metal plate	Q5086	2211633,	*2SC2229-O,
R6130-R6134	453630824	8.2ohm+/-5%,1W,Metal		2211634 or	*2SC2229-Y or
R6136	453630824	8.2ohm+/-5%,1W,Metal		2215853	*KTC3206-O
R6230-R6232	443521214	120ohm+/-5%,1/2W,Metal oxide			Diodes
R6240-R6242	443521214	120ohm+/-5%,1/2W,Metal oxide	D5003,D5004	224470562	MTZJ5.6B
R6250-R6252	443521804	18ohm+/-5%,1/2W,Metal oxide	D5006	224470562	MTZJ5.6B
R6260-R6262	443521804	18ohm+/-5%,1/2W,Metal oxide			Capacitors
R6270-R6272	453530224	2.2ohm+/-5%,1/2W,Metal			47uF,50V,Elect.
R6280-R6282	453530224	2.2ohm+/-5%,1/2W,Metal	C5003,C5004	393384707	47uF,50V,Elect.
R6510-R6514	453532294	0.22ohm+/-5%,1/2W,Metal	C5006	393384707	220pF+/-10%,50V,Plastic
R6520-R6523	453532294	0.22ohm+/-5%,1/2W,Metal	C5013,C5014	374722215	220pF+/-10%,50V,Plastic
	Terminals		C5016	374722215	100uF,16V,Elect.
P5100A,P5101A	25060301	NTM-1P232(M1700)	C5043,C5044	393341017	100uF,16V,Elect.
P5201A,P5202A	25060301	NTM-1P232(M1700)	C5046	393341017	10uF,50V,Elect.
	Sockets		C5053,C5054	354781009	10uF,50V,Elect.
P5003	2009990666UL	NSAS-12P0929	C5056	354781009	10uF,100V,Elect.
P5004	2009990690UL	NSAS-12P0958	C5073,C5074	354791009	10uF,100V,Elect.
P6008	2009990670AUL	NSAS-14P0933	C5076	354791009	22uF,63V,Elect.
P6810	2009990668UL	NSAS-6P0931	C5083,C5084	354772209	22uF,63V,Elect.
P6812	2009990669UL	NSAS-6P0932	C5086	354772209	47uF,50V,Elect.
P6931A	25051230	NSCT-5P1020	C5093,C5094	354784709	47uF,50V,Elect.
P6952	2009990671UL	NSAS-6P0934	C5096	354784709	100pF+/-10%,50V,Plastic
	Plugs		C5103,C5104	374721015	100pF+/-10%,50V,Plastic
P6000-P6004	25056009	NPLG-4P0959	C5106	374721015	47uF,100V,Elect.
P6006	25056009	NPLG-4P0959	C5123,C5124	354794709	47uF,100V,Elect.
P6010	25056011	NPLG-6P0961	C5126	354794709	47uF,100V,Elect.
P6011,P6012	25056009	NPLG-4P0959	C5133,C5134	354794709	47uF,100V,Elect.
P6013	25056011	NPLG-6P0961	C5136	354794709	47uF,100V,Elect.
P6014,P6016	25056009	NPLG-4P0959			Resistors
P6080-P6084	25055038	NPLG-2P29	R5133,R5134	443528214	820ohm+/-5%,1/2W,Metal oxide
P6086	25055038	NPLG-2P29	R5136,R5143	443528214	820ohm+/-5%,1/2W,Metal oxide
	Retainer		R5144,R5146	443528214	820ohm+/-5%,1/2W,Metal oxide
P6009	27141794	(BUS)	R5153,R5154	443521034	10kohm+/-5%,1/2W,Metal oxide
	Bus bars		R5156	443521034	10kohm+/-5%,1/2W,Metal oxide
P6202,P6203	27141753	BBL50	R5163,R5164	443521024	1kohm+/-5%,1/2W,Metal oxide
P6204,P6208	27141774	BBL75	R5166	443521024	1kohm+/-5%,1/2W,Metal oxide
P6205	27141753	BBL50	R5173,R5174	443528214	820ohm+/-5%,1/2W,Metal oxide
P6206,P6207	27141773	BBL40	R5176	443528214	820ohm+/-5%,1/2W,Metal oxide
	Clamps		R5183,R5184	443523304	33ohm+/-5%,1/2W,Metal oxide
P6301-P6303	260224	CP-1S	R5186	443523304	33ohm+/-5%,1/2W,Metal oxide
P6305-P6307	260224	CP-1S	R5233,R5234	443521504	15ohm+/-5%,1/2W,Metal oxide
P9508	27301394	HL-18-0	R5236,R5243	443521504	15ohm+/-5%,1/2W,Metal oxide
	Heat sinks		R5244,R5246	443521504	15ohm+/-5%,1/2W,Metal oxide
Q6090A-Q6092A	27160486	RAD-155	R5283,R5284	443521034	10kohm+/-5%,1/2W,Metal oxide
	Screws		R5286	443521034	10kohm+/-5%,1/2W,Metal oxide
Q6090B-Q6092B	838430107	3TTB+10S(BC)	R5303,R5304	443521014	100ohm+/-5%,1/2W,Metal oxide
Q6100B-Q6102B	838430107	3TTB+10S(BC)	R5306,R5333	443521014	100ohm+/-5%,1/2W,Metal oxide
POWER AMPLIFIER DRIVER PC BOARD (NAAF-7251-2C)					
CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors			Terminals	
Q5003,Q5004	2215896,	*KTC3200-BL,	P5201,P5202	25060302	NTM-1P233(M1969)
Q5006,Q5013	2210755,	*2SC1775A-E,			Sockets
Q5014,Q5016	2210756 or	*2SC1775A-F or	P6003A,P6004A	25052287	NSCT-4P2184
	2211733	*2SC1845-E	P6006A	25052287	NSCT-4P2184
Q5023,Q5024	2215896,	KTC3200-BL,	P6013A	25052289	NSCT-6P2186
Q5026	2210755,	2SC1775A-E,	P6014A,P6016A	25052287	NSCT-4P2184
	2210756 or	2SC1775A-F or			
	2211733	2SC1845-E			
Q5033,Q5034	2215844,	KTA1024-Y,			
Q5036,Q5043	2211353,	2SA949-O,			
Q5044,Q5046	2211354 or	2SA949-Y or			
	2215843	KTA1024-O			

PRINTED CIRCUIT BOARD-PARTS LIST 5

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
	Transistors	
Q6901	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S
Q9501	2211644	2SA965-Y
	Diodes	
D9501,D9502	22380285, 22380022 or 22380271	RS403M, RBV402 or D3SBA20
D9506,D9507	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D9508	224473304	MTZJ33D
	Capacitors	
C9401,C9402	394561007	10uF,35V,Elect.
C9411,C9412	394561007	10uF,35V,Elect.
C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
	Resistors	
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
	Fuses	
F9501,F9502	252160 or 252254	2.5A-UL/T-237 or 2.5A-T/UL-ST2
F9503,F9504	252158 or 252252	1.6A-UL/T-237 or 1.6A-T/UL-ST2
	Fuse holders	
F9501A,F9501B	25052133	NSCT-1P2031
F9502A,F9502B	25052133	NSCT-1P2031
F9503A,F9503B	25052133	NSCT-1P2031
F9504A,F9504B	25052133	NSCT-1P2031
	Sockets	
JL6953A,JL9504A	25051108	NSCT-4P895
	Plugs	
P9501	25055138	NPLG-8P122
P9502A	25055159	NPLG-15P143
P9503	25055702	NPLG-6P658

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5652	4000153	PTH9M04BF222TS2F333
R5654	4000150	PTH9M04BC222TS2F333
	Socket	
JL9504B	25051088	NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q4000,Q4420	22241383R2 or	NJM4565M-D
Q4421,Q4800	22240489R1NE	MPC4570G2-T1(MST)
Q4100	22240943R2	TC9163AF
Q4101	22241221R2	TC9164AF
Q4200-Q4203	22241640R2	TC9A407F
Q4210-Q4213	22241450R2 or	NJM2082M-D or
Q4410,Q4411	22241567R2	NJM2082M
Q4400,Q4401	22241451R9	NJU7306G
	Transistors	
Q4491	2215410R2	RN1441
Q4600-Q4607	2215410R2	RN1441
Q4610-Q4617	2215410R2	RN1441
Q4810-Q4815	2215410R2	RN1441
	Diode	
D4540	224490510R2	UDZ5.1B
	Capacitors	
C3600-C3607	374723314	330pF+/-5%,50V,Plastic
C3610-C3617	393381007	10uF,50V,Elect.
C3800-C3802	393384707	47uF,50V,Elect.
C3803-C3806	393381007	10uF,50V,Elect.
C3807	354724719	470uF,6.3V,Elect.
C3820,C3821	393384707	47uF,50V,Elect.
C3840,C3841	393381007	10uF,50V,Elect.
C4010,C4011	393381007	10uF,50V,Elect.
C4120	354742219	220uF,16V,Elect.
C4121	354741029	1000uF,16V,Elect.
C4200-C4207	393381007	10uF,50V,Elect.
C4217	374721024	1000pF+/-5%,50V,Plastic
C4220-C4227	393382207	22uF,50V,Elect.
C4400-C4402	393384707	47uF,50V,Elect.
C4407	393384707	47uF,50V,Elect.
C4417	374721024	1000pF+/-5%,50V,Plastic
C4420-C4422	354741009	10uF,16V,Elect.
C4430-C4432	374721044	0.1uF+/-5%,50V,Plastic
C4440-C4442	374724724	4700pF+/-5%,50V,Plastic
C4491	374721024	1000pF+/-5%,50V,Plastic
C4492	354724719	470uF,6.3V,Elect.
C4522,C4523	354741009	10uF,16V,Elect.
C4524,C4525	354742219	220uF,16V,Elect.
C4540	354721019	100uF,6.3V,Elect.
C4600-C4607	393384707	47uF,50V,Elect.
C4610-C4617	374722224	2200pF+/-5%,50V,Plastic
C4800,C4801	354741009	10uF,16V,Elect.
C4802,C4803	354780229	2.2uF,50V,Elect.
C4806,C4807	354721019	100uF,6.3V,Elect.
C4808,C4809	374722224	2200pF+/-5%,50V,Plastic
	Resistors	
R4520,R4521	4500171F	2.2ohm+/-5%,1/4W,Metal oxide
	Terminals	
P3600,P4600	25045587	NPJ-4PDBRW398
P3601,P4601	25045582 or 25045491	NPJ-4PDRW393 or NPJ-4PDBL308
	Sockets	
P4010B	25051235	NSCT-10P1025
P4011B,P4020B	25051240	NSCT-15P1030
	Plugs	
P4012A	25055734	NPLG-3P690
P5003E	25055152	NPLG-8P136
P5004E	25055153	NPLG-9P137
	Bus bars	
J4220-J4222	27141754	BBL60
	Holder	
P5004G	27190608-1	Clamp

PRINTED CIRCUIT BOARD-PARTS LIST 6

AUDIO TERMINAL PC BOARD(AAF-7263-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q1001	222780125	78M12HF
Q3000	22241383-R2 or	NJM4565M-D
Q3020,Q3021	22240489R1NE	MPC4570G2-T1(MST)
Q3100	22241639R2	TC9273F-017
	Capacitors	
C1002	354741009	10uF,16V,Elect.
C1003,C1006	354780339	3.3uF,50V,Elect.
C1007	354741009	10uF,16V,Elect.
C3000,C3001	374721015	100pF+/-10%,50V,Plastic
C3002,C3003	393384707	47uF,50V,Elect.
C3006,C3007	354722219	220uF,6.3V,Elect.
C3008,C3009	374721234	0.012uF+/-5%,50V,Plastic
C3010,C3011	374723924	3900pF+/-5%,50V,Plastic
C3020-C3023	374723314	330pF+/-5%,50V,Plastic
C3026-C3029	393384707	47uF,50V,Elect.
C3120,C3121	354744709	47uF,16V,Elect.
C3122,C3123	354742219	220uF,16V,Elect.
	Terminals	
P3000,P3001	25045582 or 25045491	NPJ-4PDRW393 or NPJ-4PDBL308
	Sockets	
P1010A	25052248, 25051859 or 25052061	NSCT-15P2145, NSCT-15P1646 or NSCT-15P1848
P3010B	25051232	NSCT-7P1022
P3011B	25051240	NSCT-15P1030

VIDEO TERMINAL PC BOARD (NAAF-7264-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q3200-Q3205	22241383-R2 or	NJM4565M-D or
Q3400	22240489R1NE	MPC4570G2-T1(MST)
Q3300	22240829	TC9274N-008
	Transistors	
Q3410-Q3413	2215410R2	RN1441
	Capacitors	
C3200-C3209	374723314	330pF+/-5%,50V,Plastic
C3212-C3223	393384707	47uF,50V,Elect.
C3320,C3321	354742219	220uF,16V,Elect.
C3322,C3323	354744709	47uF,16V,Elect.
C3400-C3403	393384707	47uF,50V,Elect.
C3404,C3405	374721024	1000pF+/-5%,50V,Plastic
	Resistors	
R3320,R3321	443522204	22ohm+/-5%,1/2W,Metal oxide
	Terminals	
P3200-P3203	25045582 or 25045491	NPJ-4PDRW393 or NPJ-4PDBL308
	Sockets	
P3210B,P3211B	25051232	NSCT-7P1022
	Plug	
P3220A	25055133	NPLG-3P117

IR TERMINAL PC BOARD (NAAF-7265-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q1503,Q1504	22241383-R2 or 22240489R1NE	NJM4565M-D or MPC4570G2-T1(MST)
Q1530	222780053	78L05
	Transistors	
Q1506,Q1507	2215410R2	RN1441
Q1531	2216175R2 or	KTC3875-GR or
Q1534-Q1536	2213145R2	2SC2712-GR
Q1532,Q1533	2216190R2 or	KRC102S or
Q1538	2214470R2	RN1402
Q1537	2216185R2 or 2214375R2	KTA1504-GR or 2SA1162-GR

CIRCUIT NO.	PART NO.	DESCRIPTION
D1500-D1503	Diodes 223234R2 or 223269R2	1SS352 or 1SS355
D1530,D1531	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
	Capacitors	
C1500,C1501	354780229	2.2uF,50V,Elect.
C1502,C1503	354741009	10uF,16V,Elect.
C1504,C1505	354780229	2.2uF,50V,Elect.
C1508-C1515	374721024	1000pF+/-5%,50V,Plastic
C1516-C1523	354781009	10uF,50V,Elect.
C1530	354761019	100uF,35V,Elect.
C1531	354741009	10uF,16V,Elect.
C1532	374722234	0,022uF+/-5%,50V,Plastic
C1533,C1534	374721024	1000pF+/-5%,50V,Plastic
C1540,C1541	354741009	10uF,16V,Elect.
	Resistor	
R1546	443524714	470ohm+/-5%,1/2W,Metal oxide
	Terminals	
P1501	25045598	HEC0470-01-630
P1503	25045504	NPJ-1PDBL319
P1504	25045647	HSJ1002-01-1020
	Sockets	
P1502	25052631	NSCT-32P2528
P2905B	25051235	NSCT-10P1025

CONNECTOR PC BOARD (NAAF-7267-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q2903,Q2905	2216175R2 or	KTC3875-GR or
Q2907,Q2909	2213145R2	2SC2712-GR
Q2902,Q2904	2216220R2 or	KRA102S or
Q2906,Q2908	2214530R2	RN2402
Q2911,Q2921	2216190R2 or	KRC102S or
Q2922	2214470R2	RN1402
Q2912	2212855 or 2212853	2SB1068-U or 2SB1068-K
	Diodes	
D2902,D2903	223234R2 or	1SS352 or
D2921	223269R2	1SS355
	Capacitors	
C2902-C2905	354741009	10uF,16V,Elect.
C2908,C2909	354741009	10uF,16V,Elect.
C2921	354721019	100uF,6.3V,Elect.
C2922	374722234	0.022uF+/-5%,50V,Plastic
	Thermistor	
R2909	4000195	RXE030
	Resistors	
R2912	453530474	4.7ohm+/-5%,1/2W,Metal
R2913	453530224	2.2ohm+/-5%,1/2W,Metal
	Sockets	
P4012A	25051255	NSCT-3P1045
P7201B	25051840	NSCT-33P1627
P9502	2009990692UL	NSAS-30P0961
	Plugs	
P2005A,P2505A	25055708	NPLG-12P664
P2006A	25055711	NPLG-15P667
P2705A	25055704	NPLG-8P660
P2901A	25055917	NPLG-19P870
P2905A,P4010A	25055706	NPLG-10P662
P3010A	25055703	NPLG-7P659
P3011A	25055711	NPLG-15P667
P3210A,P3211A	25055703	NPLG-7P659
P4011A,P4020A	25055711	NPLG-15P667
P7703A	25055712	NPLG-20P668
P7704A	25055704	NPLG-8P660
P7705A	25055711	NPLG-15P667
P811A	25055712	NPLG-20P668
	Bus bar	
J2903	27141753	BBL50
	Clamp	
P2902	260224	CP-1S

PRINTED CIRCUIT BOARD-PARTS LIST 7

COMPOSITE VIDEO CIRCUIT PC BOARD (NAVD-7268-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2001	22241037	LC74761-9189
Q2005	22241619R2	TC9273F-004
Q2101	222740515R2	74HC4051AF
Q2102,Q2105	22241443R2	TK15420M
Q2201	222740515R2	74HC4051AF
	Transistors	
Q2002,Q2006	2216175R2 or	KTC3875-GR or
Q2103,Q2106	2213145R2	2SC2712-GR
Q2003,Q2004	2216031R2 or	RN1444-A or
Q2108,Q2109	2216032R2	RN1444-B
Q2007	2216210R2 or	KRC104S or
	2214490R2	RN1404
Q2011-Q2014	2216220R2 or	KRA102S or
	2214530R2	RN2402
Q2104,Q2107	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
Q2301-Q2308	2216031R2 or	RN1444-A or
	2216032R2	RN1444-B
	Diodes	
D2001	223234R2 or	1SS352 or
D2006,D2007	223269R2	1SS355
D2103,D2104	223234R2 or	1SS352 or
D2106,D2107	223269R2	1SS355
	Crystal	
X2001	3010167 or	XTL-14.32M or
	3010347	HQS-HC49U-14318-11
	Coils	
L2001	231292J056R2	NCH-1572
L2002	231237K022R2	NCH-1471
	Capacitors	
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.
	Terminals	
P2001-P2003	25045363	NPJ-3PDYE208
	Sockets	
P2005B	25051237	NSCT-12P1027
P2006B	25051240	NSCT-15P1030
P2007B	25051241	NSCT-20P1031

S VIDEO CIRCUIT PC BOARD (NAVD-7269-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2501,Q2511	222740515R2	74HC4051AF
Q2502,Q2602	22241443R2	TK15420M
Q2601,Q2611	222740515R2	74HC4051AF
	Transistors	
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
	Diodes	
D2503-D2506	223234R2 or	1SS352 or
	223269R2	1SS355
	Coils	
L2508,L2608	231237K022R2	NCH-1471
L2509,L2609	231292J056R2	NCH-1572
	Capacitors	
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.
	Sockets	
P2501	25051955	NSCT-4P1742
P2502	25051957	NSCT-12P1744
P2503,P2504	25051956	NSCT-8P1743
P2505B	25051237	NSCT-12P1027
P2507B	25051241	NSCT-20P1031
	Plug	
P2506A	25055236	NPLG-5P220

COMPONENT VIDEO CIRCUIT PC BOARD (NAVD-7270-1Q)

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

RI TERMINAL PC BOARD (NAETC-7272-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q201	22241537R2	MPD4721GS
Q233	222780565	78M56
	Photo coupler	
Q211	24120080	PC817X
	Transistors	
Q221	2216190R2 or	KRC102S or
	2214470R2	RN1402
Q222	2212855 or	2SB1068-U or
	2212853	2SB1068-K
Q223	2216190R2 or	KRC102S or
	2214470R2	RN1402
Q224	2212855 or	2SB1068-U or
	2212853	2SB1068-K
Q231,Q232	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR

PRINTED CIRCUIT BOARD-PARTS LIST 8

RI TERMINAL PC BOARD (NAETC-7272-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D201	223234R2 or 223269R2	1SS352 or 1SS355
D202,D203	223234R2 or 223269R2	1SS352 or 1SS355
	Coil	
L201	230948R2	BLM21A102F
	Thermistors	
R227,R228	4000195	RXE030
	Capacitors	
C201-C204	354780109	1uF,50V,Elect.
C207	354721019	100uF,6.3V,Elect.
C221,C222	354744709	47uF,16V,Elect.
C223	354744709	47uF,16V,Elect.
C231	354741009	10uF,16V,Elect.
C232	354751029S	1000uF,25V,Elect.
	Resistors	
R233	453532294	0,22ohm+/-5%,1/2W,Metal
R234	441721514	150ohm+/-5%,2W,Metal oxide
	Terminals	
P202,P204	25045647	HSJ1002-01-1020
P203	25045647	HSJ1002-01-1020
	Sockets	
JL931A	25051107	NSCT-3P894
P201	25052379	NSCT-9P2277
P2901B	25052142	NSCT-19P2040
P6830B,P6832B	25051255	NSCT-3P1045
	Radiator	
Q233A	27160145	RAD-51
	Screw	
Q233B	82143010	3P+10FN(BC)

CONNECTOR PC BOARD (NAETC-7273-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Plugs	
P2007A,P2507A	25055712	NPLG-20P668

DISPLAY CIRCUIT PC BOARD (NADIS-7330-1I)

CIRCUIT NO.	PART NO.	DESCRIPTION
	FL tube	
Q7501	212216	16-BT-96GNK
	Remote sensor	
U7201	241335 or 241341	SPS-444-1 or SPS-444-1-E1
	ICs	
Q7201	22241682R3	M30624MGA-359FP
Q7502	22241680R2	M66005-0001FP
	Transistors	
Q7202	2216230R2 or 2214540R2	KRA103S or RN2403
Q7503	2216175R2 or	KTC3875-GR or
Q7538,Q7539	2213145R2	2SC2712-GR
Q7521-Q7527	2216190R2 or	KRC102S or
Q7529-Q7534	2214470R2	RN1402
Q7546-Q7549	2216190R2 or 2214470R2	KRC102S or RN1402
	Diodes	
D7201,D7202	223234R2 or	1SS352 or
D7502	223269R2	1SS355
D7203	224490510R2 or 224550510R2	UDZ5.1B or UDZS5.1B
D7501	224490820R2 or 224550820R2	UDZ8.2B or UDZS8.2B
D7533	225290	SEL4110R
D7534	225292D	SEL4310G-D
D7536-D7539	225291D	SEL4310D-D
D7541-D7551	225375	SML1216C
	Oscillator	
X7201	3010322	CST16,00MXW0C1,Ceramic

CIRCUIT NO.	PART NO.	DESCRIPTION
	Coils	
L7201	231237M022R2	NCH-1471
R7201,R7202	230958R1	BK1608LM182-T
	Capacitors	
C7201,C7202	355721019	100uF,6.3V,Elect.
C7203,C7204	375524744	0.47uF+/-5%,50V,Plastic
C7207	355721019	100uF,6.3V,Elect.
C7503	354721019	100uF,6.3V,Elect.
C7506	375524744	0.47uF+/-5%,50V,Plastic
C7510	355783309	3.3uF,50V,Elect.
	Switches	
S7541-S7544	25035699	NPS-111-S662
S7556-S7559	25035699	NPS-111-S662
S7581-S7591	25035699	NPS-111-S662
	Sockets	
P7201A	25051877	NSCT-33P1664
P7482A	25051089	NSCT-5P876
P7559A	25051087	NSCT-3P874
	Holder	
Q7501A	27191074A	(FL)

VOLUME PC BOARD (NASW-7331-1I)

CIRCUIT NO.	PART NO.	DESCRIPTION
S7569	25065611	EC16B24C25,Rotary encoder
P7559B	25051087	NSCT-3P874,Socket

HEADPHONE TERMINAL PC BOARD (NAETC-7332-1I)

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

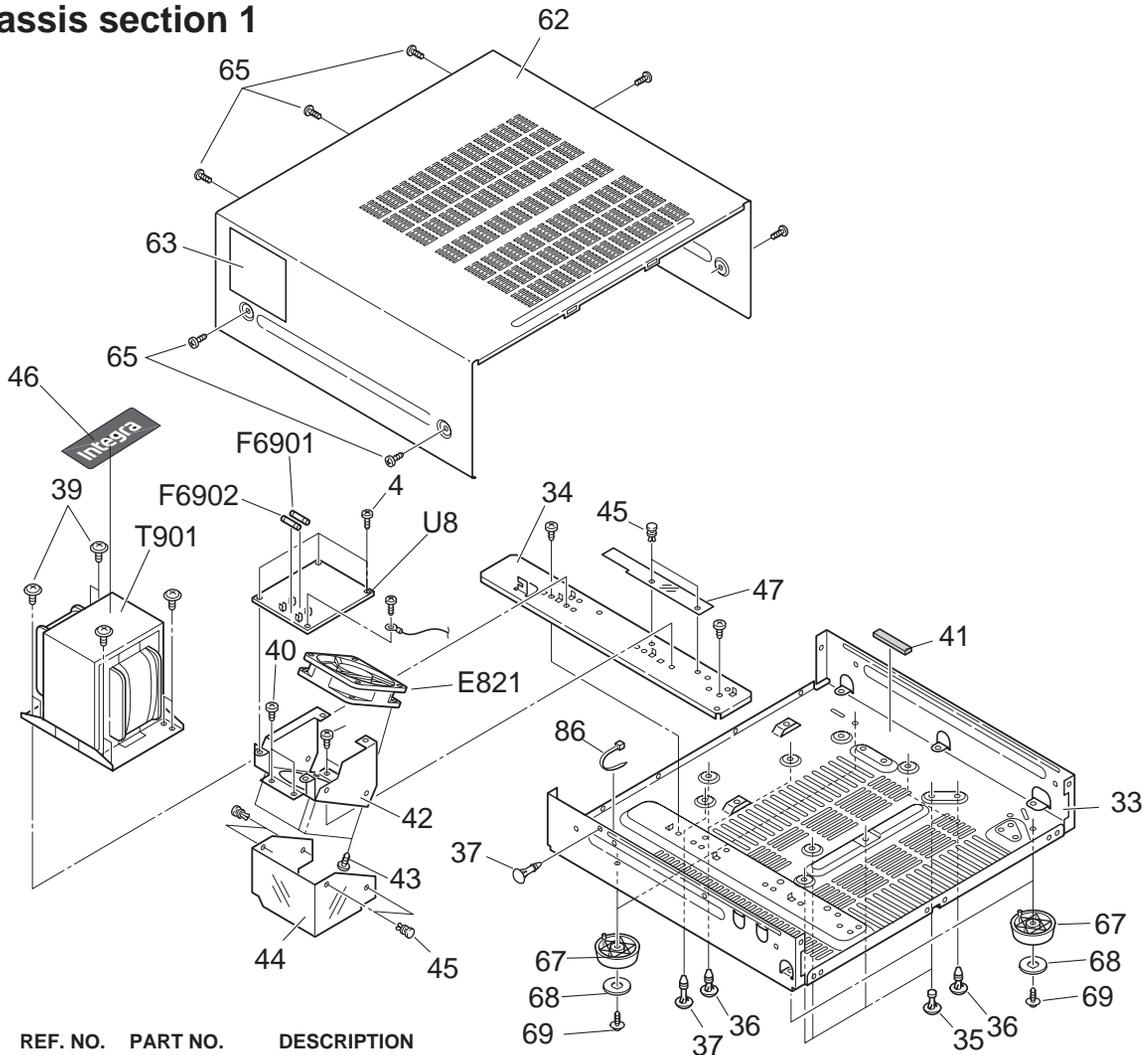
FRONT VIDEO PC BOARD (NAAF-7227-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals	
P2508	25051569	NSCT-4P1356
P2510	25045675	NPJ-3PDB473
	Sockets	
P2506B	2009990575UL	NSAS-10P0784
P3220B	2009990420	NSAS-6P0564

FRONT VIDEO 2 PC BOARD (NADG-7228-1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
U2501	24120095	TORX179,Photo coupler
L2501	231237M022R2	NCH-1471,Coil
C2581	356741009R2	10uF,16V,Elect. Capacitor
P102B	2009990513UL	NSAS-6P0675,Socket

EXPLODED VIEW
Chassis section 1

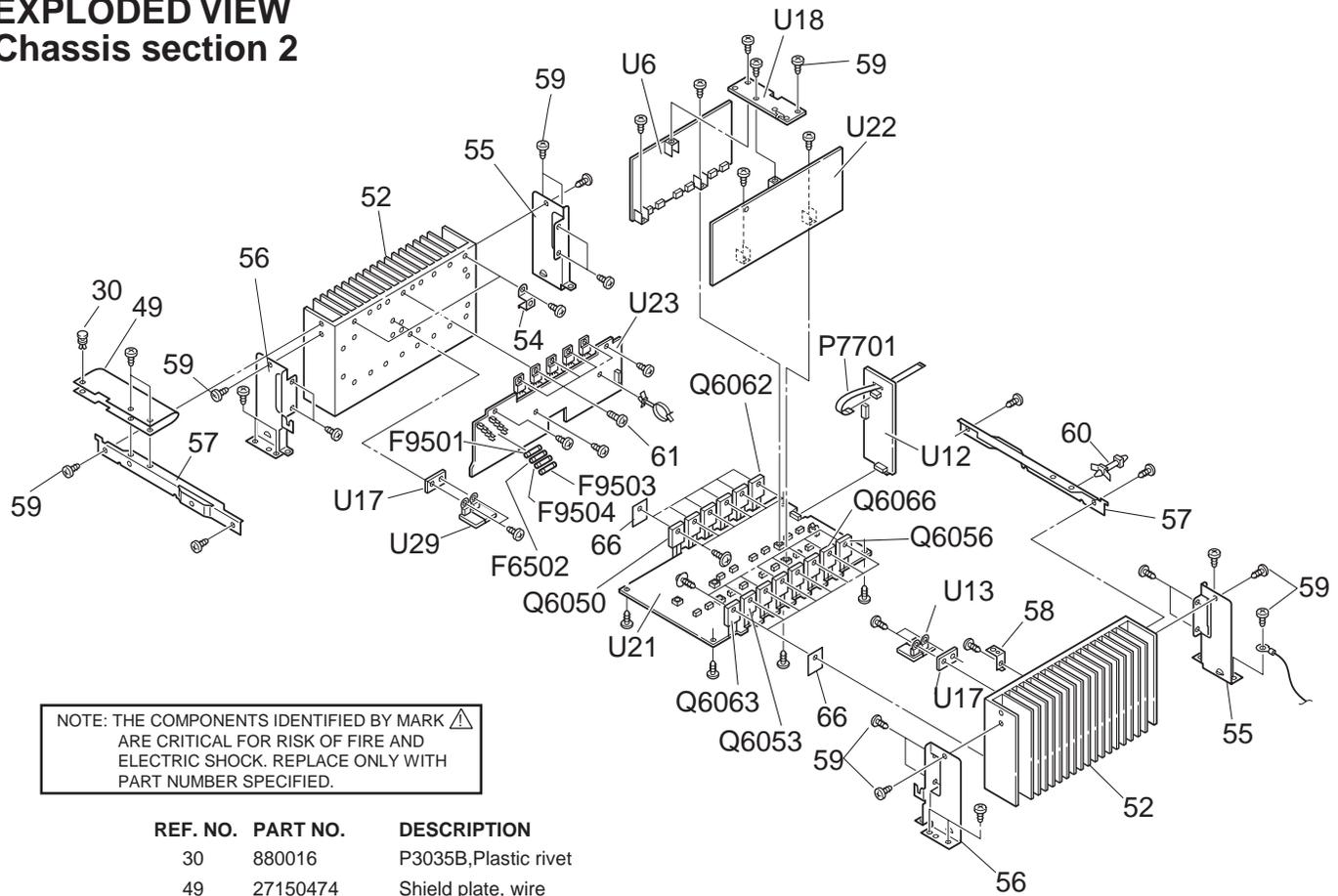


REF. NO.	PART NO.	DESCRIPTION
33	27100408	Chassis
34	27130870	Bracket, power transformer
35	27190965	Holder
36	27190693A	KGLS-6RF,Holder
37	27190266	KGLS-12RF,Holder
39	830440089	4TTC+8C(BC),Self-tapping screw
40	838130088	3TTB+8B,Self-tapping screw
41	28141484	Cushion
42	27141797	Retainer, fan
43	838450108	5TTB+10B(BC),Self-tapping screw
44	27150470	Shield plate, fan
45	880016	P3035B,Plastic rivet
46	29362609	Label PT
47	27150471	Shield plate, amplifier
62	28184817	Top cover
63	29362959	Label
65	838430088	3TTB+8B(BC),Self-tapping screw
67	27175319B	Leg
68	28141332	Cushion
69	831430088	3TTW+8B(BC),Self-tapping screw
86	260208	Wire tie
E821	24502310	D09T-24PG10(EX),Fan
F6901,F6902	252199	10A-UL,Fuse
T901	2301536	⚠ NPT-1421D,Power transformer
U8	1A906534-1T	NAPS-7234-1T,Rectifier circuit PC board ass'y

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

EXPLODED VIEW

Chassis section 2



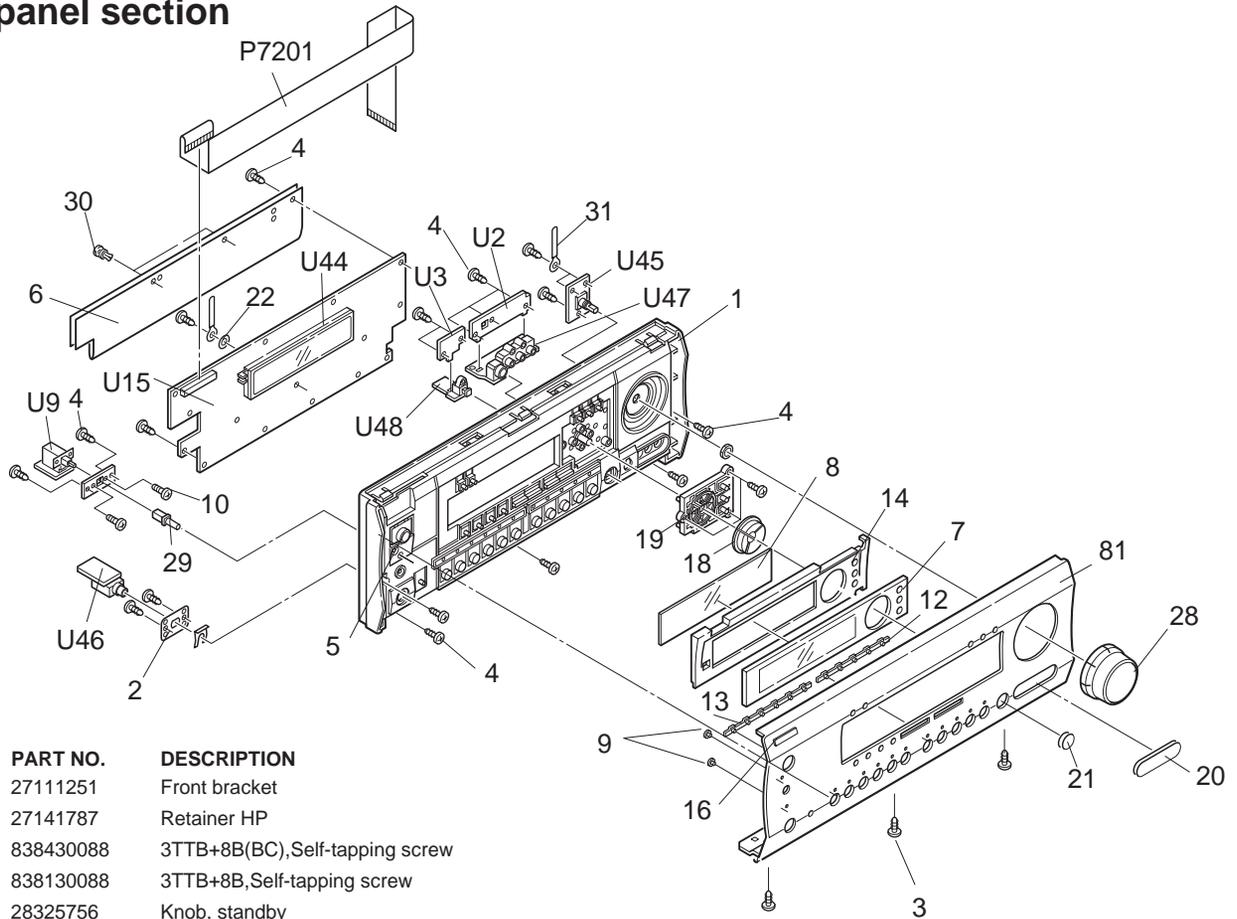
NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

REF. NO.	PART NO.	DESCRIPTION
30	880016	P3035B,Plastic rivet
49	27150474	Shield plate, wire
52	27160489	Heat sink
53	801433	3SMS8W.SW+14B(BC),Special screw
54	27141681	Retainer PWB
55	27141798	Retainer R
56	27141799	Retainer L
57	27130869	Bracket, heat sink
58	27130745	Bracket
59	838130088	3TTB+8B,Self-tapping screw
60	27190470	KGLS-18S,Holder
61	838430107	3TTB+10S(BC),Self-tapping screw
66	223025	AC262,Isolated plate
F9501	252160 or 	2.5A-UL/T-237 or
F9502	252254 	2.5A-T/UL-ST2,Fuse
F9503	252158 or 	1.6A-UL/T-237 or
F9504	252252 	1.6A-T/UL-ST2,Fuse
P7701	2047051012	NFC7-051012,Flexible cable
Q6050~	2202823 or *	2SC5200-O or
Q6056	2202822	* 2SC5200-R,Transistor
Q6060~	2202813 or *	2SA1943-O or
Q6066	2202812	* 2SA1943-R,Transistor
U6	1A906532-1T	NAAF-7232-1T,F/C drive circuit PC board ass'y
U12	1A906538-1T	NAETC-7238-1T,Fan drive circuit PC board ass'y
U13	1A906539-1T	NAETC-7239-1T,Thermal detector circuit PC board ass'y
U17	1A906543-1T	NAETC-7243-1T,PC board for holder
U18	1A906544-1T	NAETC-7244-1T,Ground PC board ass'y
U21	1A906550-2C	NAAF-7250-2C,Power amplifier PC board ass'y
U22	1A906551-2C	NAAF-7251-2C,Power amplifier driver PC board ass'y
U23	1A906552-2C	NAPS-7252-2C,Power supply circuit PC board ass'y
U29	1A906558-2C	NAETC-7258-2C,Thermal detector circuit PC board ass'y

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

EXPLODED VIEW

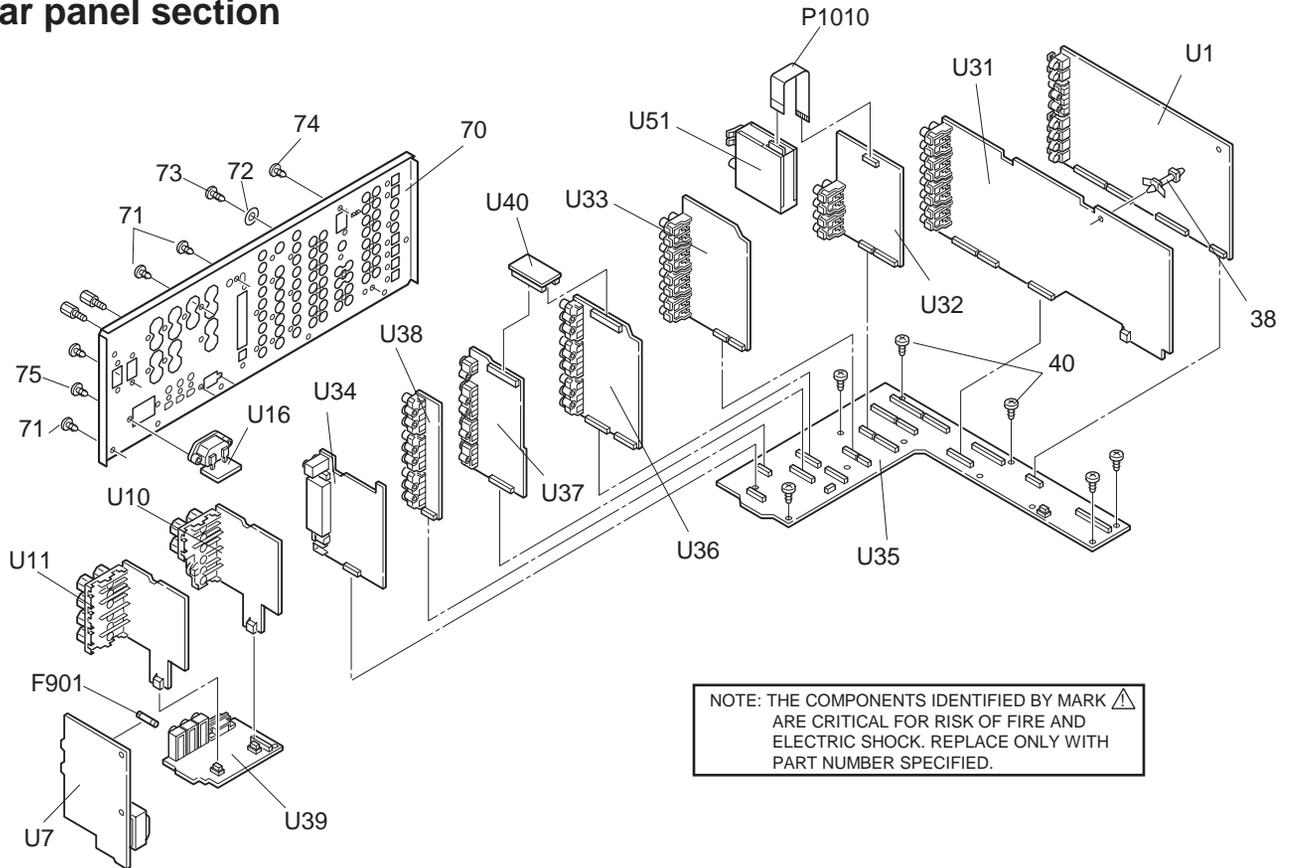
Front panel section



REF. NO.	PART NO.	DESCRIPTION
1	27111251	Front bracket
2	27141787	Retainer HP
3	838430088	3TTB+8B(BC),Self-tapping screw
4	838130088	3TTB+8B,Self-tapping screw
5	28325756	Knob, standby
6	27150472	Shield plate FFC
7	28191948	Clear plate
8	28133387	Back plate
9	28198905	Facet
10	82143010	3P+10FN(BC),Pan head screw
12	28198933	Facet 5
13	28198936	Facet 6
14	27215363	Decorative frame
16	28135278	Badge
18	28325964A	Knob CL
19	28325965	Knob TUN
20	28330137	Cap, front
21	28330146	Cap DI
22	27270375	Spacer
28	28325913	Knob, volume
29	28325753	Knob, power
30	880016	P3035B,Plastic rivet
31	27255004	CS-1U,Clip
81	27212359	Front panel
P7201	2047335512	NCFC7-335512,Flexible cable
U2	1A906529-1Q	NAETC-7229-1Q,PC board for holder
U3	1A906530-1Q	NAETC-7230-1Q,PC board for holder
U9	1A906535-1T	NASW-7235-1T,Power switch PC board ass'y
U15	1A906541-1T	NAETC-7241-1T,PC board for holder
U44	1A906530-1I	NADIS-7330-1I,Display circuit PC board ass'y
U45	1A906531-1I	NASW-7331-1I,Volume PC board ass'y
U46	1A906332-1I	NAETC-7332-1I,Headphone terminal PC board ass'y
U47	1A906527-1Q	NAAF-7227-1Q,Front video PC board ass'y
U48	1A906528-1Q	NADG-7228-1Q,Front video 2 PC board ass'y

EXPLODED VIEW

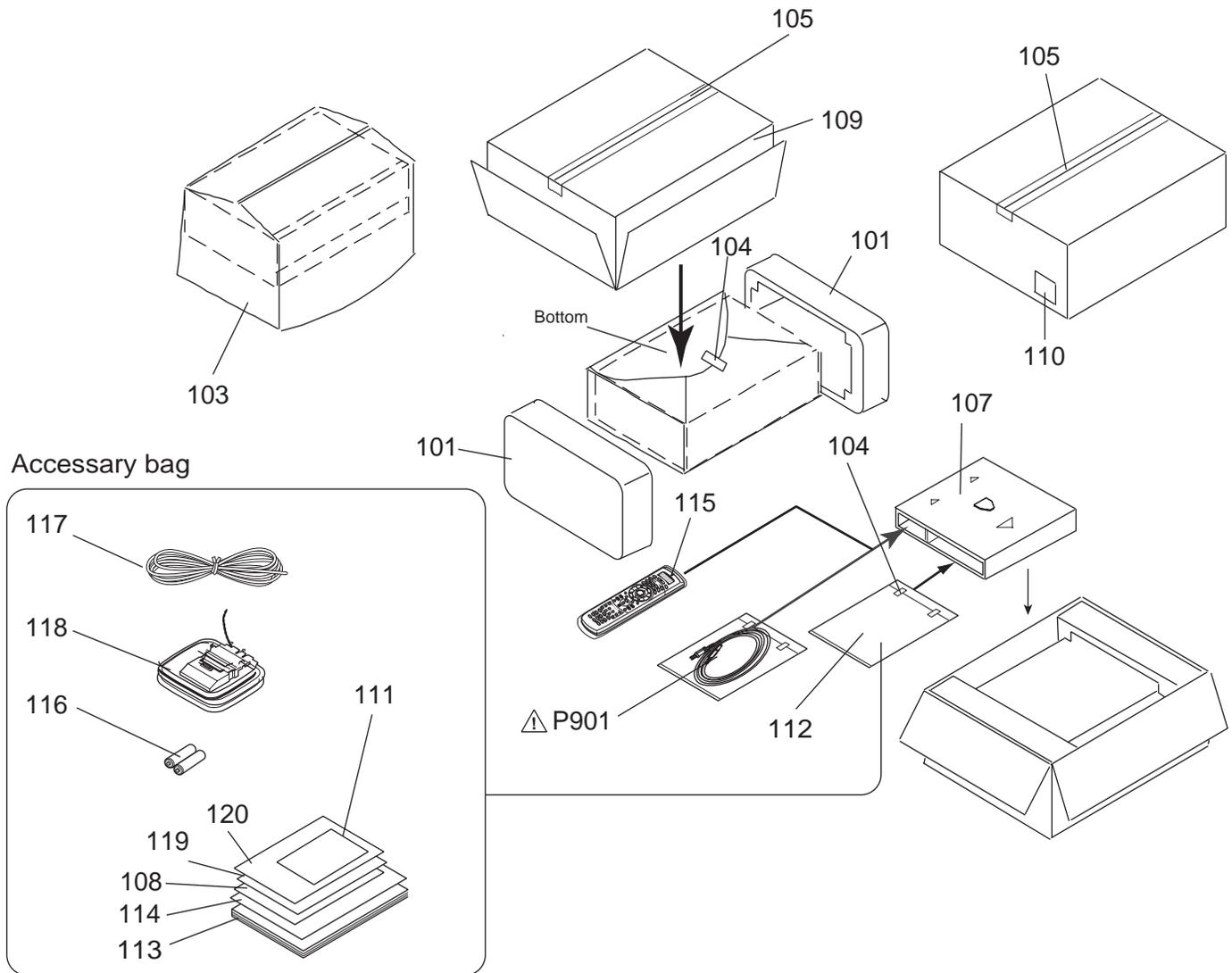
Rear panel section



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

REF. NO.	PART NO.	DESCRIPTION
38	27190164	KGLS-14S,Holder
70	27122913A	Rear panel
71	838430088	3TTB+8B(BC),Self-tapping screw
72	87643010	W3*10F(BC),Flat washer
73	838930088	3TTB+8B(UN),Self-tapping screw
74	838430068	3TTB+6B(BC),Self-tapping screw
75	838440089	4TTB+8C(BC),Self-tapping screw
76	29363048	Label ABUS
F901	252199	 10A-UL,Fuse
P1010	2047151012	NCFC7-151012,Flexible cable
U1	1A906526-1Q	NADG-7226-1Q,Main circuit PC board ass'y
U7	1A906533-1T	NAPS-7233-1T,Primary circuit PC board ass'y
U10	1A906536-1T	NAETC-7236-1T,Speaker terminal F/C PC board ass'y
U11	1A906537-1T	NAETC-7237-1T,Speaker terminal SR/SB PC board ass'y
U16	1A906542-1T	NAETC-7242-1T,AC inlet terminal PC board ass'y
U31	1A906562-1Q	NAAF-7262-1Q,Preamplifier circuit PC board ass'y
U32	1A906563-1Q	NAAF-7263-1Q,Audio terminal PC board ass'y
U33	1A906564-1Q	NAAF-7264-1Q,Video terminal PC board ass'y
U34	1A906565-1Q	NAETC-7265-1Q,ABUS circuit PC board ass'y
U35	1A906567-1Q	NAAR-7267-1Q,Connector PC board ass'y
U36	1A906568-1Q	NAVD-7268-1Q,Composite video circuit PC board ass'y
U37	1A906569-1Q	NAVD-7269-1Q,S video circuit PC board ass'y
U38	1A906570-1Q	NAVD-7270-1Q,Component video circuit PC board ass'y
U39	1A906572-1Q	NAETC-7272-1Q,RI terminal PC board ass'y
U40	1A906573-1Q	NAETC-7273-1Q,PC board for holder
U51	240138A or 240134A	ENG06501QR or TFCE1U114B,Tuner unit

PACKING PROCEDURES



REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Polybag
104	29110149	Tape, cellophane
105	29110148	Tape PP
107	29053790	Carton S
109	29053821A	Carton box
110	29362964A	Label UPC
111	29365089	Warranty card
112	29100097-1A	350*250,Polybag
113	29343210A	Instruction manual
114	29343211	Instruction sheet
115	24140461	RC-461M,Remote controller
116	3010054	UM-3,Two batteries
117	292142	FM antenna
118	232140	NMA-3057,AM loop antenna
119	29355371	Instruction sheet for ABUS
120	29355382	Instruction sheet for DVD
⚠ P901	253297KAW	AS-UC-2,Power supply cord