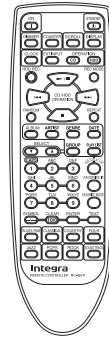
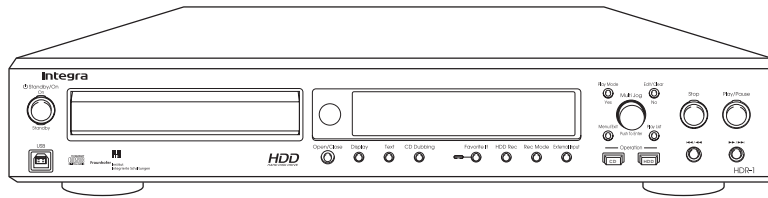


Integra SERVICE MANUAL

Hard Disk Music Library MODEL HDR-1



Black model

BUDD	120V AC, 60Hz
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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.

Main microprocessor version

01X04b
~#300

01X23A
Apply
#301~

Specifications

CD-ROM Drive Unit	ATA Packet Interface (specified in SFF-8020) (E-IDE) Industry Standard 3.5" Half Height Form Factor
Hard Disk Drive Unit	AT Attachment 5 (ATA-5) Industry Standard 5.25" Half Height Form Factor 40GB
D/A Converter	Single bit (Crystal CS4341, 24 bit/96 kHz)
A/D Converter	Single bit (Crystal CS53L32A, 24 bit/96 kHz)
Connections	2 Analog Output (stereo) 1 Analog Input (stereo) 2 Digital Input (optical)/(coaxial) 1 Digital Output (optical) (with Audio CD Playback only) 1 USB (Type B) 1 RS-232C (Dsub-9pin)
Frequency Response	5 Hz - 20 kHz
Playback Harmonic distortion	0.007 % (at 1 kHz, 0 dB)
Playback Dynamic range	90 dB
Playback Signal to noise ratio	90 dB
Recording Harmonic distortion	LPCM: 0.007 % (at 1 kHz, 0 dB), MP3: 0.018 % (at 1 kHz, 0 dB)
Recording Dynamic range	90 dB
Recording Signal to Noise ratio	90 dB
Channel Separation	90 dB (playback)
Wow and Flutter	Below threshold of measurability
Output Level	2.0 volts r.m.s.
Power Supply Rating & Power Consumption	AC120 V, 60 Hz, 27 W
Dimension (W.H.D.)	435 x 81 x 359 (17-1/8" x 3-3/16" x 14-1/8")
Weight	5.0 kg, 11.0 lbs

Specifications and features are subject to change without notice.

SERVICE NOTE

1. Replacing the fuses



This symbol located near the fuses indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.



Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que fusibles de meme type. Ce d'ailleurs est la qu le present symbol est appse.

CIRCUIT NO.	PART NO.	DESCRIPTION
F9001	252160	FUSE, 2.5A-UL/T-237

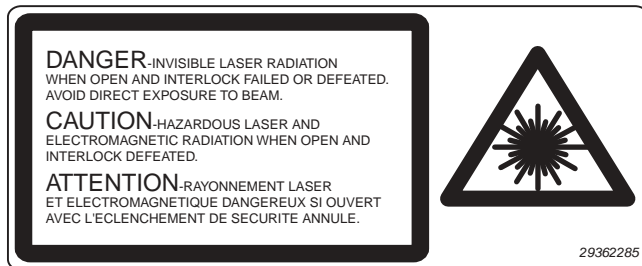
2. Safety-check out (Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer. Connect the insulating-resistance tester between the plug of power supply cord and screw on the back panel.

Specifications: 3.3Mohm+/-10% at 500V.

LASER WARNING LABEL

The labels shown below are affixed.



If one of the messages shown below appears

"(Undefined)"

There is no text data or undefined name in the current track.

"Clock Adjust"

The clock of this unit has not been set.

"Copy Protect"

An attempt was made to record copyright-protected material.

"Group Full"

An attempt was made to record more than 999 groups.

"HDD Check ..."

System error occurred. Wait for a while.

"HDD Check 999"

System error occurred. Do not operate the HDR-1 until the count down is over.

"HDD Media Full"

The HDD is full.

"HDD Only"

This function is only available with HDD mode.

"HDD Track Full"

The number of tracks has reached the limit for input to the HDD.

"New Full "

An attempt was made to enter a new group that exceeds the maximum group capacity.

"No Disc"

There is no disc in the HDR-1.

"No Favorite"

There are no tracks that have a "favorite it" marking.

"No Genre"

There are no tracks that have a genre.

"No Group"

There is no group data in the HDD.

"No Playlist"

There are no play lists.

"No Track"

There are no tracks in the group; or an appropriate track was not found.

"Not Audio-CD"

The CD data format is not PCM or MP3.

"Not Available in this Source"

Will not work with the current input source.

"Not Available MP3CD"

The Rec Mode cannot be selected with CDs containing MP3 data.

"P.List Full"

An attempt was made to enter more than 100 tracks in the playlist.

"System Err...Please Power Off & On"

System error occurred. Press the STANDBY/ON button.

"Track Full"

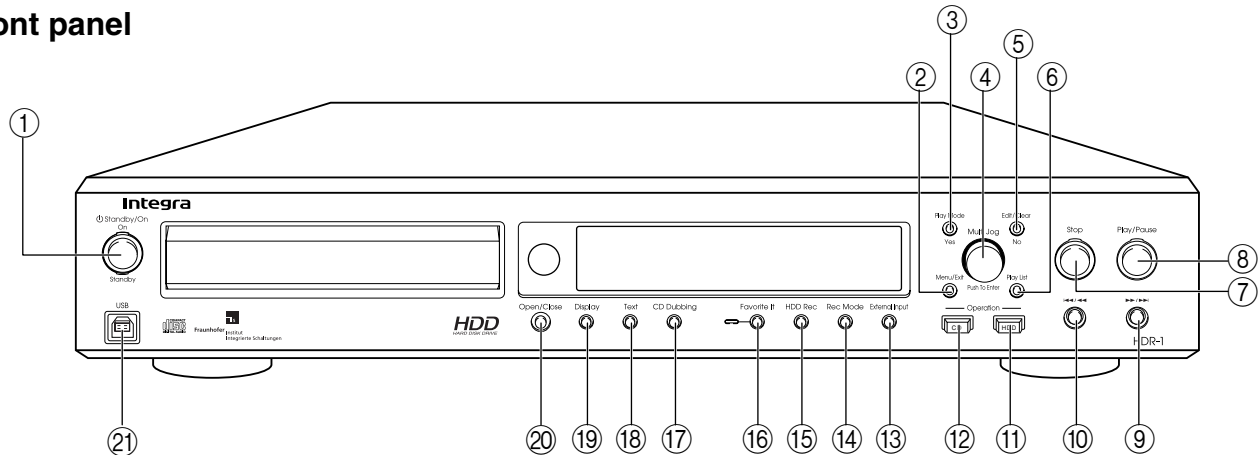
An attempt was made to record more than 255 tracks.



Digital controller board & Firmware are developed and provided by QPACT, Inc.

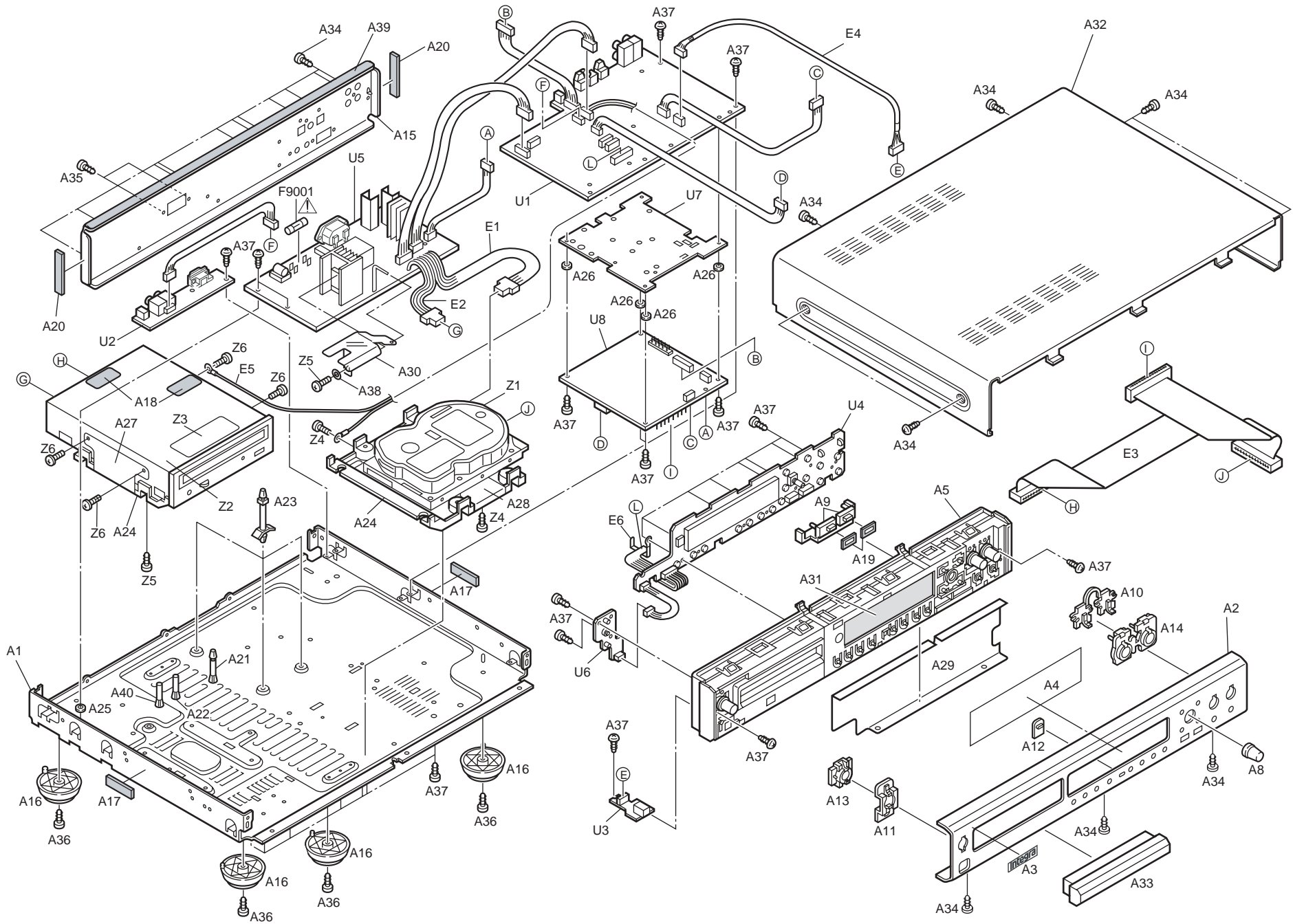
Parts names and functions

Front panel



- ① Standby/On button**
Turns on the HDR-1 or place it in the standby state.
- ② Menu/Exit button**
Switches the menu mode. Press this button while selecting any menu item to exit the menu.
- ③ Play Mode/Yes button**
Used together with the Multi Jog dial to switch play mode.
- ④ Multi Jog dial**
Used for selecting the group number (folder). When setting any mode, this dial is used for selecting the parameters for the mode. Also, press this dial to confirm the entry.
- ⑤ Edit/Clear/No button**
Press this button to enter the state for setting modes or parameters. When you are asked to select Yes or No, this button works as No selection. While editing ID3 tag information, this button works as Clear button for canceling the entry.
- ⑥ Play List button**
Used together with the jog dial to switch the play lists. You can store up to 100 play lists on memory of the HDR-1.
- ⑦ Stop button**
Stops the playback of a CD or the HDD, or stops recording.
- ⑧ Play/Pause button**
Starts playing or recording tracks on a CD or the HDD. Press this button while playing or recording to pause, the HDR-1. Press it again to resume playing or recording.
- ⑨ >>>/>>> button**
Press to locate the beginning of the next track. Hold down to fast forward.
- ⑩ <<</<<< button**
Press to locate the beginning of the current or previous track. Hold down to reverse.
- ⑪ HDD button**
Activates the HDD section.
- ⑫ CD button**
Activates the CD player section.
- ⑬ External Input**
Selects the external input source. The input sources switches between ANALOG, DIGITAL-1 (optical), and DIGITAL-2 (coaxial).
- ⑭ Rec Mode button**
Switches the recording mode. The recording modes switches between MP3 128kbps, MP3 192kbps, PCM, and MP3 96kbps.
- ⑮ HDD Rec button**
Puts the HDR-1 in the recording standby state. Press it again to select the group which the recorded tracks will belong to.
- ⑯ Favorite It button**
Marks the currently selected or played track as your favorite. Pressing the button again unmarks the track.
- ⑰ CD Dubbing button**
Copies whole CDs onto the HDR-1's HDD with ease. When you copy the CD containing MP3 files, one group (folder) on the CD will be copied on to the HDD.
- ⑱ Text button**
Enters the mode for entering and editing characters.
- ⑲ Display button**
Switches the information displayed in the display area (TITLE, ALBUM, ARTIST, GENRE, DATE, GROUP). Displays the letter you entered while editing information.
- ⑳ Open/Close button**
Opens and closes the CD tray.
- ㉑ USB port**
Connects the HDR-1 to your PC. You can transfer MP3 audio files from a PC to the HDR-1's HDD using the Carry Tunes PC software. The HDR-1 supports the hot plug capability, allowing you to connect or disconnect without turning the PC off.

EXPLODED VIEW



EXPLODED VIEWS - PARTS LIST

No.	Description	Part number
U1	PC BOARD AS,NAAR-7346-2A	1W225546-2A
U2	PC BOARD AS,NAETC-7347-2A	1W225547-2A
U3	PC BOARD AS,NAETC-7348-2A	1W225548-2A
U4	PC BOARD AS,NADIS-7349-2A	1W225549-2A
U5	PC BOARD AS,NAPS-7350-2A	1W225564-2A
U6	PC BOARD AS,NASW-7351-2A	1W225551-2A
U7	PC BOARD AS,NAETC-7359-2A	1W225564-2A
U8	PC BOARD AS,NQP3100D	24150024
E1	SOCKET AS,NSAS-8P0963	2009990694
E2	SOCKET AS,NSAS-8P0964	2009990695
E3	SOCKET AS,NSAS-120P0963	2009990693
E4	SOCKET AS,NSAS-8P0983	2009990706
E5	CRIMP AS,SRA-STRIP(300)	20799132
E6	CLIP,CS-1U	27255004
F9001	FUSE,2.5A-UL/T-237	△ 252160
A1	CHASSIS	27100407A
A2	F PANEL	27212358
A3	BADGE	28135278Y
A4	CLEAR PLT	28191950
A5	F BRACKET	27111259
A8	KNOB(AMCS)	28325969
A9	FACET(HDD,CD)	28198941
A10	FACET(STOP)	28198928
A11	FACET(STANDBY)	28198930
A12	FACET(FAVORITE)	28198940
A13	GUIDE(STANDBY)	27268049
A14	GUIDE(STOP)	27268053
A15	REAR PANEL	27122921
A16	BOTTOM LEG(AS)	27175388
A17	CUSHION(SHLD)	28141490
A18	CUSHION	28141491
A19	CUSHION	28141486
A20	CUSHION	28141467
A21	HOLDER,KGLS-18RF	27190657
A22	HOLDER,KGPS-18RF	27190926
A23	HOLDER,KGLS-18S	27190470
A24	HOLDER(CD)	27191160A
A25	SPACER	27270429
A26	SPACER,PVC T1.0	27270427
A27	ISO PLT(CD)	28175281
A28	ISO PLT(HDD)	28175282
A29	ISO PLT(CU)	28175280
A30	ISO PLT(HS)	28175283

No.	Description	Part number
A31	B PLATE(HDR-1(B))	28133399
A32	COVER	28184821
A33	DOOR	28148500
A34	SCREW,3TTB+8B(BC)	838430088
A35	SCREW,4TTB+8C(BC)	838440089
A36	SCREW,3TTW+8B(BC)	831430088
A37	SCREW,3TTB+8B	838130088
A38	SP WASHER,SE-3(BC)	871430
A39	TAPE(CROSS-8U)	29110082
A40	HOLDER,KGPS-14RF	27190802
Z1	Hard Disk Drive,MPG3409AT-EF	24842002
Z2	CD-ROM MECHA,CR-594-C	24800049
Z3	LABEL	29362285
Z4	SCREW,No.6-32*1/4UNC	801603
Z5	SCREW,3P+10FN(BC)	82143010
Z6	SCREW,3P+6FN(BC)	82143006

SAFETY-RELATED COMPONENT WARNING!!

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REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

A B C D
SCHEMATIC DIAGRAMS (1/6)

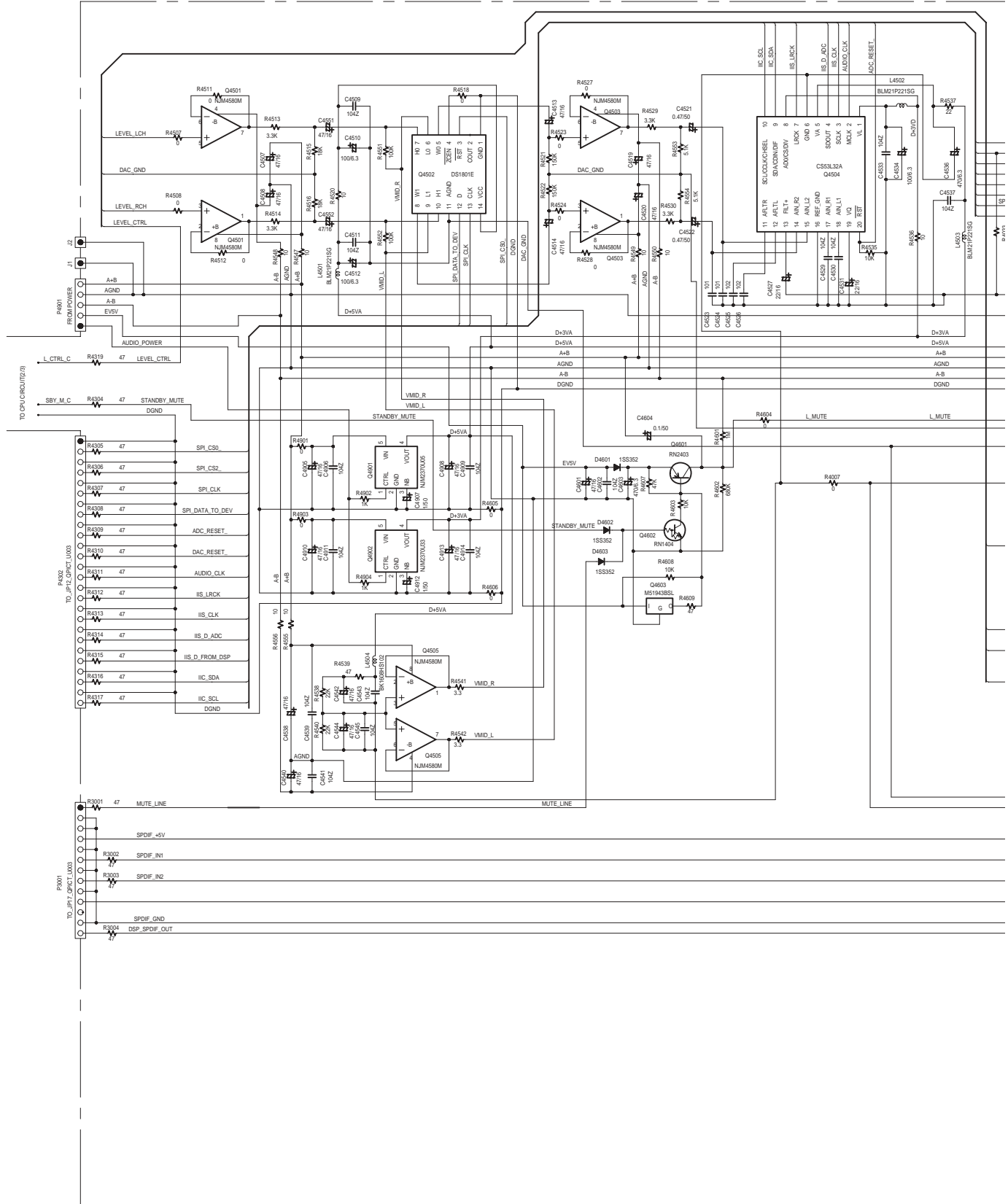
1

2

3

4

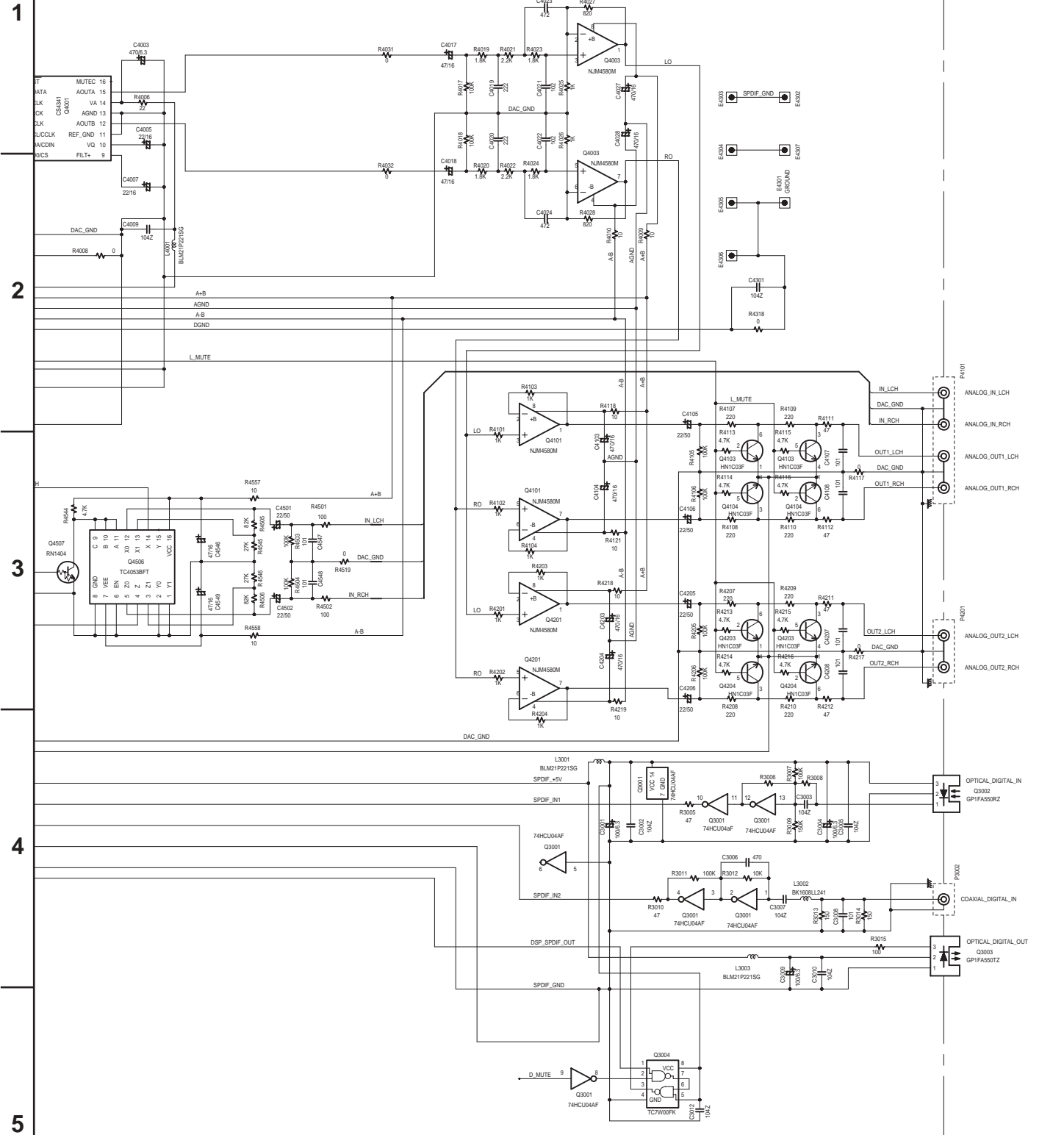
5



A B C D
SCHEMATIC DIAGRAMS (2/6)

NAAR-7346

1
2
3
4
5



A B C D

SCHEMATIC DIAGRAMS (3/6)

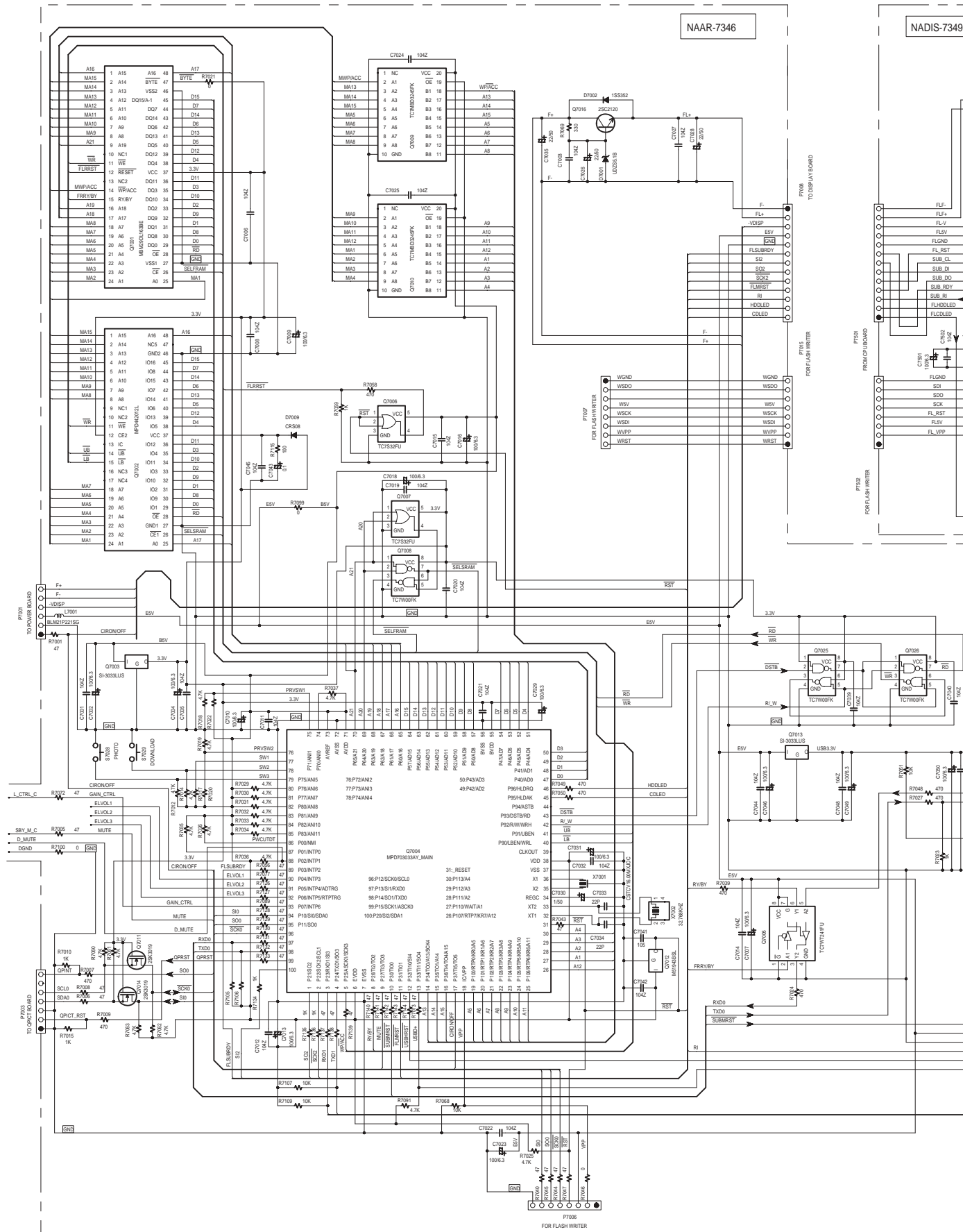
1

2

3

4

5



SCHEMATIC DIAGRAMS (3/6)

A

B

C

D

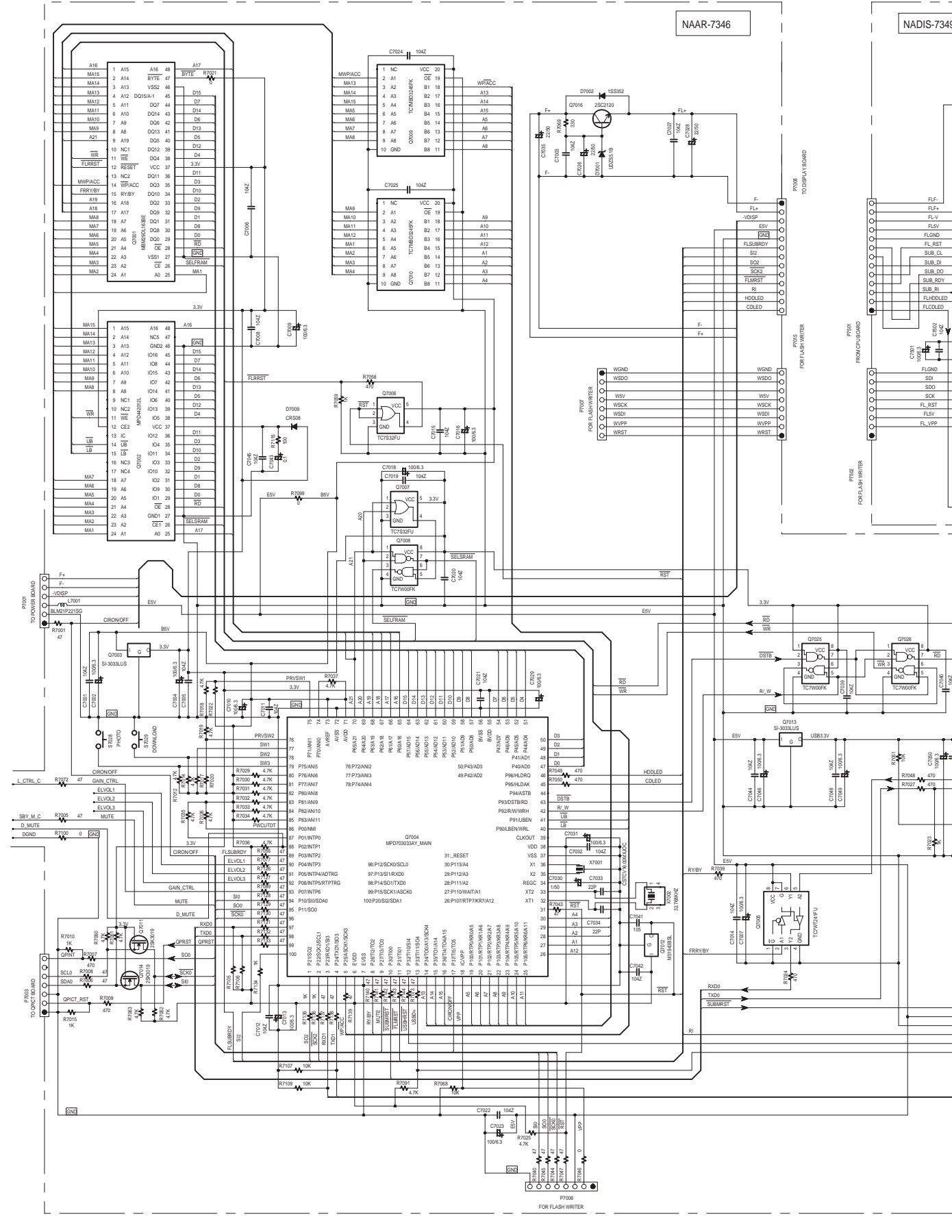
1

2

3

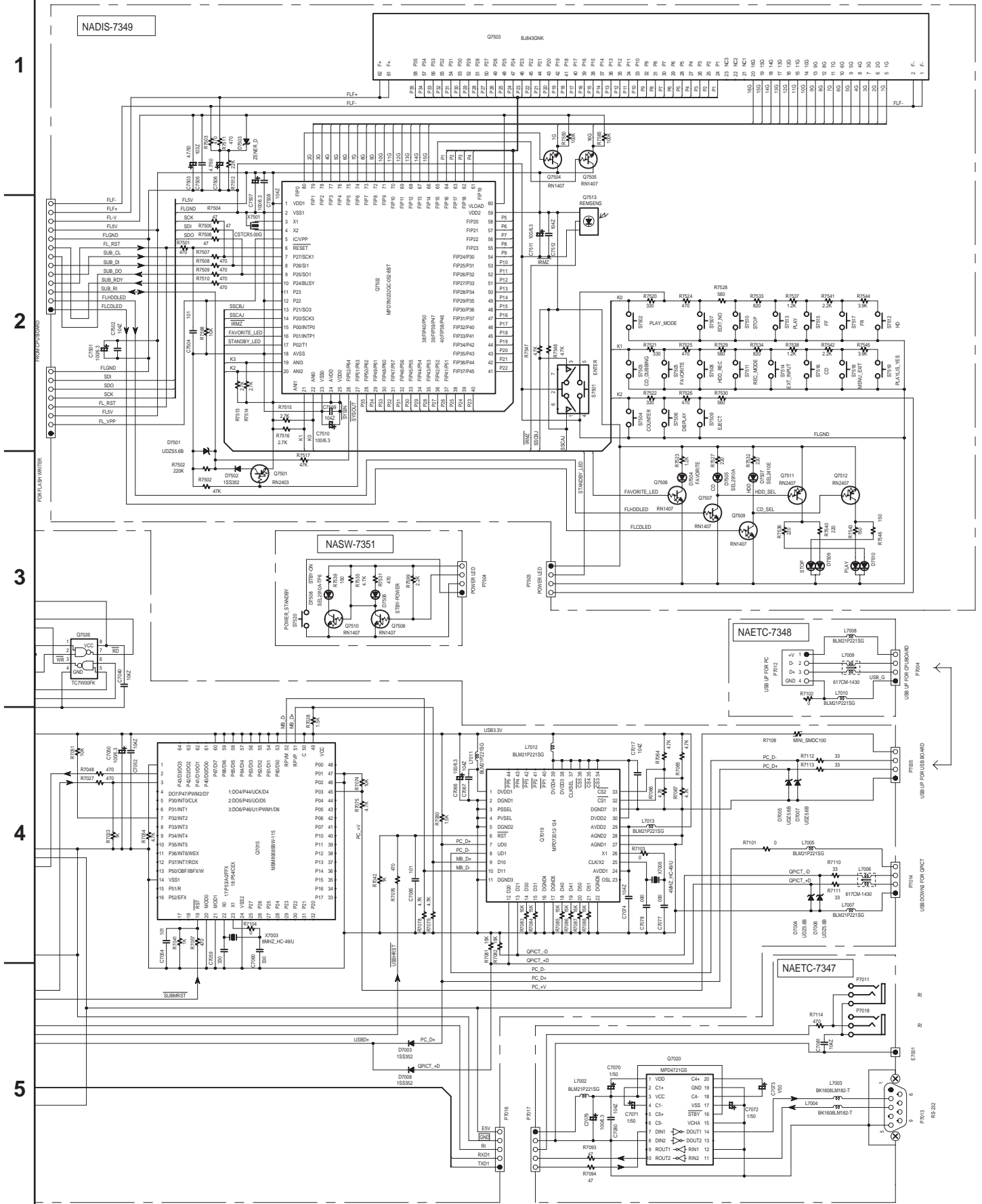
4

5



A B C D

SCHEMATIC DIAGRAMS (4/6)

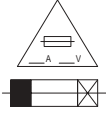


A B C D
SCHEMATIC DIAGRAMS (5/6)

NAPS-7350

CAUTION

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



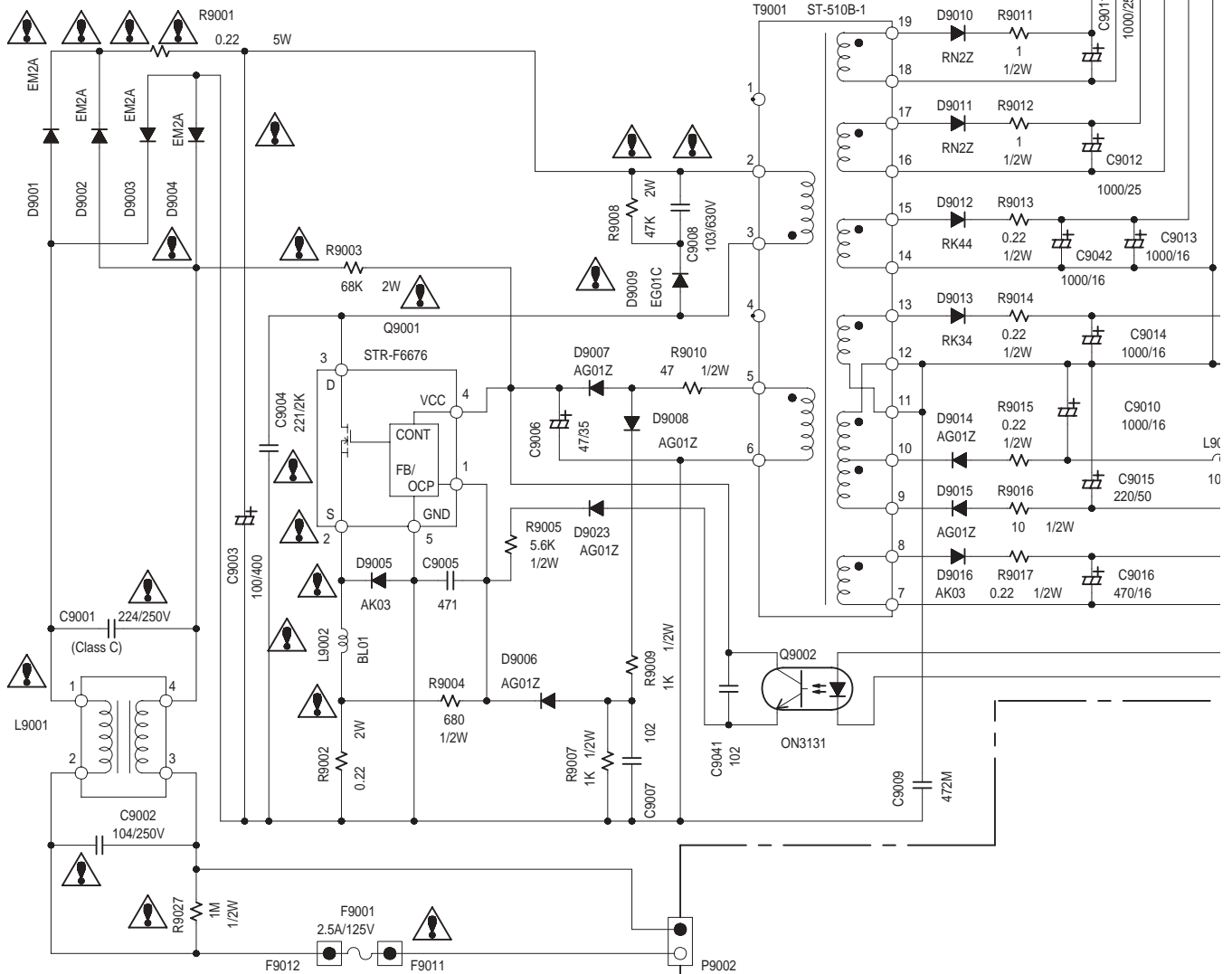
THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MARKING ADJACENT TO THE SYMBOL

ATTENTION

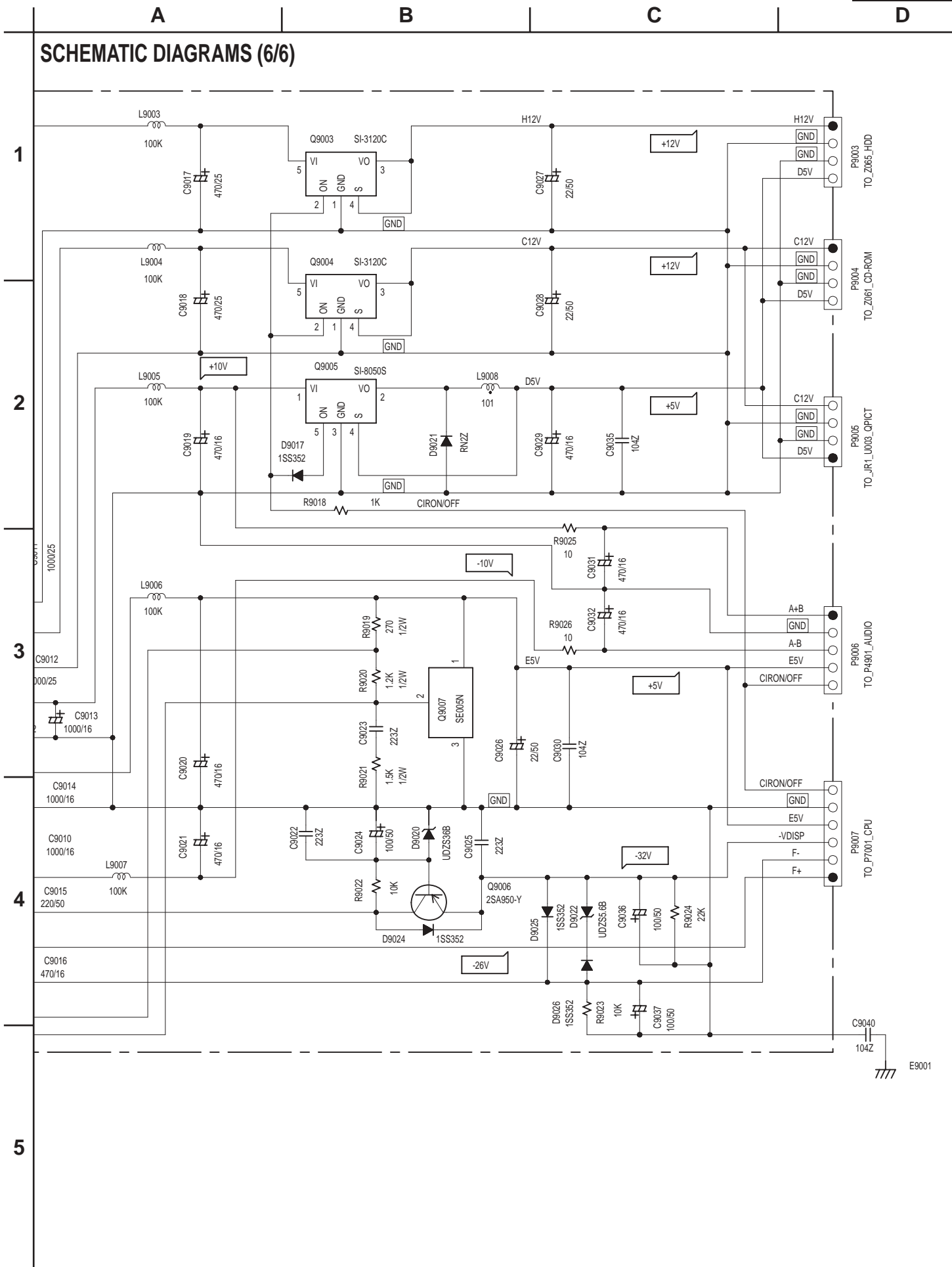
AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.



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



SCHEMATIC DIAGRAMS (6/6)



PRINTED CIRCUIT BOARD PARTS LIST-1

NAAR-7346			C-No	Description	Part number
C-No	Description	Part number	[CAPACITOR]		
[SEMI CONDUCTOR]					
D4601,D4602, D4603	C-DIODE,1SS352	223234R2	C4023,C4024 C4103,C4104, C4203,C4204	TF C,ECQ-B50V-472J ELECT C,CE04W16V-470M	374724724 354744719
D7001	ZENER D,UDZS5.1B	224550510R2			
D7002,D7003	C-DIODE,1SS352	223234R2	[RESISTOR]		
D7004-D7007	ZENER D,UDZS5.6B	224550560R2	R7108	RESISTOR,miniSMDC100	4000192R2
D7008	C-DIODE,1SS352	223234R2	[SW TRM]		
D7009	DIODE,CRS08	223272R2	E4302	TRM(SCREW), NEGITANSI M3	25065425
Q3001	IC,74HCU04F	222740046R2			
Q3002	PHT CP,GP1FA550RZ	24120083	E4303-E4306	TRM,NTM-1P232(M1700)	25060301
Q3003	PHT CP,GP1FA550TZ	24120082	E4311,E4312	HOLDER,(CRAMP) UA-0 V0	27190608-1
Q3004	IC,TC7W00FK	22241707R2	P3001	SOCKET AS,NSAS-26P0971	2009990696A
Q4001	IC,CS4341	22241701R2	P3002	PIN JACK,NPJ-1PDOR403	25045592
Q4003,Q4101	IC,NJM4580M-D	22241448R2	P4101	PIN JACK,NPJ-4PDWR443	25045637
Q4103,Q4104	TR,HN1C03F-B	2216141R2Y	P4201	PIN JACK,NPJ-2PDWR404	25045593
Q4201	IC,NJM4580M-D	22241448R2	P4302	SOCKET,NSCT-26P2543	25052646
Q4203,Q4204	TR,HN1C03F-B	2216141R2	P4901	PLUG,NPLG-5P119	25055135
Q4501	IC,NJM4580M-D	22241448R2	P7001	PLUG,NPLG-6P120	25055136
Q4502	IC,DS1801E	22241702R2	P7003	SOCKET-AS,NSAS-14P0180	2002391425
Q4503	IC,NJM4580M-D	22241448R2	P7005	PLUG,NPLG-4P118	25055134
Q4504	IC,CS53L32A	22241703R2	P7006	PLUG,NPLG-8P660	25055704
Q4505	IC,NJM4580M-D	22241448R2	P7008	PLUG,NPLG-13P141	25055157
Q4506	IC,4053BFT(TC4053BFT)	222840533R2TO	P7014	SOCKET AS,NSAS-8P0969	20019240815
Q4507	TR,RN1404	2214490R2	P7016	PLUG,NPLG-5P133	25055149
Q4601	TR,RN2403	2214540R2	S7028,S7029	PUSH SW,NPS-111-S662	25035699
Q4602	TR,RN1404	2214490R2			
Q4603	IC,M51943B	222951	NAETC-7347		
Q4901	IC,NJM2370U05	22241289R2	C-No	Description	Part number
Q4902	IC,NJM2370U33	22241547R2	[SEMI CONDUCTOR]		
Q7001	IC,MBM29DL163BE or IC,MBM29DL163BD	22241736R3 or 22241737R3	Q7020	IC,MPD4721GS	22241537R2
Q7002	IC,MPD442012	22241705R3	[TRANS COIL]		
Q7003	IC,SI-3033LUS	22278033CR2	L7002	CHOKO COIL,BLM21P221SG	230949R2
Q7004	IC,MPD70F3033AYGC-8EU	22241719R3	L7003,L7004	EMIFIL,BK1608LM182-T	230958R1
Q7005	IC,TC7WT241FU	22241546R2	[SW TRM]		
Q7006,Q7007	IC,TC7S32FU	22241292R2	E7001	TRM(SCREW), NEGITANSI M3	25065425
Q7008	IC,TC7W00FK	22241707R2	P7011	JACK,HSJ0847-01-010	25045204
Q7009,Q7010	IC,TC7MBD3245FK	22241709R2	P7013	SOCKET,NSCT9P2277	25052379
Q7011	TR,2SK3019	2216520R2	P7017	SOCKET-AS,NSAS-10P0034	2002341020
Q7012	IC,M51943B	222951	P7018	JACK,HSJ0847-01-010	25045204
Q7013	IC,SI-3033LUS	22278033CR2			
Q7014	TR,2SK3019	2216520R2	NAETC-7348		
Q7015	IC,MB89585BW-115	22241708R3	C-No	Description	Part number
Q7016	TR,2SC2120-O or TR,2SC2120-Y	2211163 or 2211164	[TRANS COIL]		
Q7019	IC,MPD72012-124-3B4	22241632R3	L7008	CHOKO COIL,BLM21P221SG	230949R2
Q7025,Q7026	IC,TC7W00FK	22241707R2	L7009	CHOKO COIL,NCH-1571	233530R2
[TRANS COIL]			L7010	CHOKO COIL,BLM21P221SG	230949R2
L3001	CHOKO COIL,BLM21P221SG	230949R2	[SW TRM]		
L3002	EMIFIL,BK1608LL241-T	230959R1	P7004	PLUG,NPLG-4P118	25055134
L3003,L4001, L4501-L4503	CHOKO COIL,BLM21P221SG	230949R2	P7012	SOCKET,NSCT-4P2042	25052145
L4504	EMIFIL,BK1608HS102-T	230955R2	NADIS-7349		
L7001,L7005	CHOKO COIL,BLM21P221SG	230949R2	C-No	Description	Part number
L7006	CHOKO COIL,NCH-1571	233530R2	[TUNER UNIT]		
L7007	CHOKO COIL,BLM21P221SG	230949R2	Q7513	REMO SENS,SPS-440-1-N	241339
L7011-L7013	CHOKO COIL,BLM21P221SG	230949R2	[SEMI CONDUCTOR]		
X7001	CERA LOCK, CSTCV16.00MXJ0C	3010329R2	D7501	ZENER D,UDZS5.6B	224550560R2
X7002	CRYSTAL,DMX-26S32.768KHz	3010360R2	D7502	C-DIODE,1SS352	223234R2
X7003	CRYSTAL,HC-49/U03 6MHz	3010349	D7504	LED,SEL2410E-1	225302
X7005	CRYSTAL,HC-49/U03 4MHz	3010350	D7505	LED,SEL2910A	225259
[CAPACITOR]			D7507	LED,SEL2410E	225258
C7043	EDL C,DX-5R5L104	3000078	D7509,D7510	LED,SML79423C-TP15	225392
C4003	ELECT C,CE04W6.3V-470M	354724719	Q7501	TR,RN2403	2214540R2
C4027,C4028	ELECT C,CE04W16V-470M	354744719	Q7502	IC,MPD780232GC-052-8BT	22241697R3
C4536,C4603	ELECT C,CE04W6.3V-470M	354724719	Q7503	FL TUBE,BJ843GNK	212225
C4019,C4020	TF C,ECQ-B50V-222J	374722224	Q7504-Q7507, Q7509	TR,RN1407	2216260R2
C4021,C4022	TF C,ECQ-B50V-102J	374721024	Q7511,Q7512	TR,RN2407	2216360R2

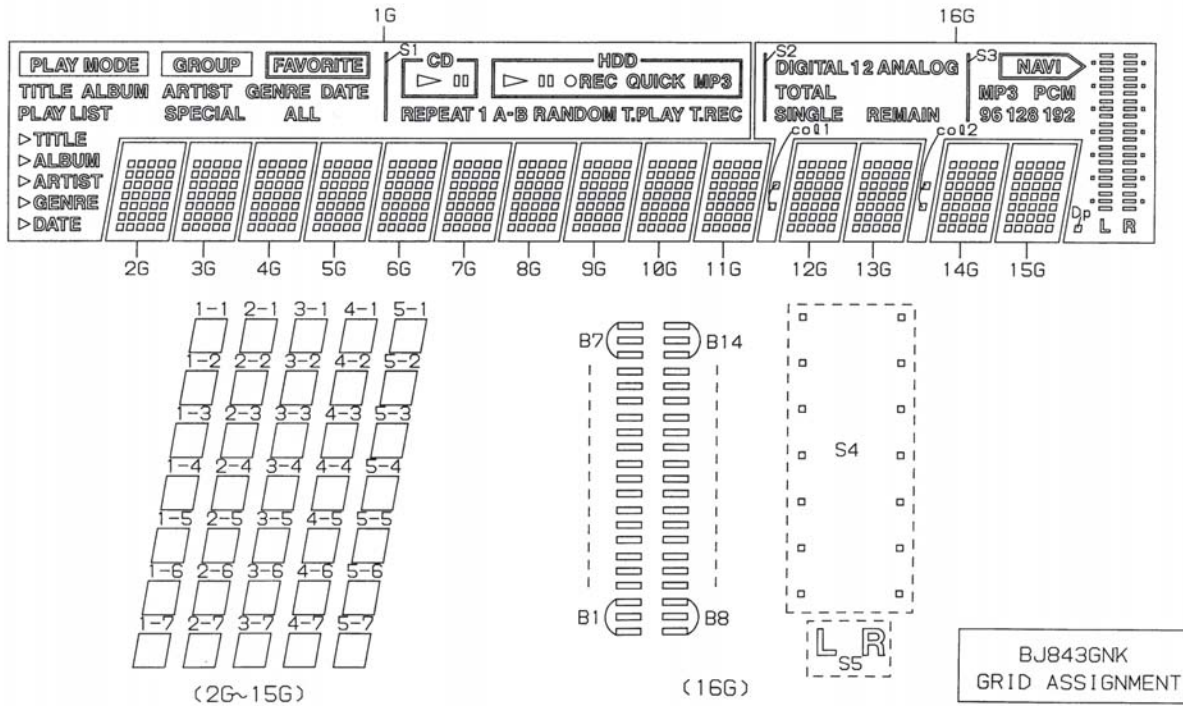
PRINTED CIRCUIT BOARD PARTS LIST-2

NADIS-7349			C-No	Description	Part number
C-No	Description	Part number	[RESISTOR]		
X7501	CERA LOCK, CSTCR5M00G53-B0	3010356R2	R9013-R9015	METAL R,RNU1/2WCJ-0.22	453532294
[SW TRM]			R9016	METAL O R,RS1/2WBJ-10	443521004
E7501	HOLDER,(FL)	27191082	R9017	METAL R,RNU1/2WCJ-0.22	453532294
E7502,E7503	HOLDER,(LED)	27191150	R9019	METAL O R,RS1/2WBJ-270	443522714
P7501	SOCKET AS,NSAS-26P0800	2002A392640	R9020	METAL O R,RS1/2WBJ-1.2K	443521224
P7503	SOCKET-AS,NSAS-8P0309	2002390815	R9021	METAL O R,RS1/2WBJ-1.5K	443521524
S7501	ROT ENC,EC11B15244	25065507	R9023	METAL O R,RS1/2WBJ-2.7K	443522724
S7502-S7519	PUSH SW,NPS-111-S662	25035699	R9024	METAL O R,RS1/2WBJ-10K	443521034
			R9025,R9026	METAL O R,RS1/2WBJ-10	△ 443521004
			R9027	RESISTOR,RD1/2SPH-1M	4000205
NAPS-7350			[SW TRM]		
C-No	Description	Part number	E9001	TRM(SCREW),NEGITANSI M3	25065425
[SEMI CONDUCTOR]			E9503	WS CLAMP,CP-1S	260224
D9001-D9004	DIODE,EM2A	△ 22380287F	F9011,F9012	FUSE HOL,NSCT-1P2031	25052133
D9005	DIODE,AK03	△ 22380310	P9002	AC INLET,NPLG-2P913	25055960
D9006-D9008	DIODE,AG01Z	22380294	P9003,P9004	PLUG,NPLG-4P1045	25056106
D9009	DIODE,EG01C	△ 22380291	P9005	SOCKET AS,NSAS-8P0965	20019290825
D9010,D9011	DIODE,RN2Z	22380295F	P9006	SOCKET AS,NSAS-10P0966	20019291020
D9012	DIODE,RK44	22380311F	P9007	SOCKET AS,NSAS-12P0967	20019291210
D9013	DIODE,RK34F	223189F	Q9001A	HEAT SINK,RAD-160	27160494
D9014,D9015	DIODE,AG01Z	22380294	Q9001B	SCREW,3P+10FN(BC)	82143010
D9016	DIODE,AK03	22380310	Q9001C	ISO PLT,(HS)	28175283
D9017	C-DIODE,1SS352	223234R2	Q9001D	SP WASHER,SW-3(BC)	871430
D9020	ZENER D,UDZS33B	224553300R2	Q9003A,Q9004A	RADIATOR,RAD-95(B)	27160315
D9021	DIODE,RN2Z	22380295F	Q9003B,Q9004B	SCREW,3P+6FN(BC)	82143006
D9022	ZENER D,UDZS5.6B	224550560R	Q9005A	HEAT SINK,RAD-159	27160493
D9023	DIODE,AG01Z	22380294	Q9005B	SCREW,3P+10FN(BC)	82143010
D9024-D9026	C-DIODE,1SS352	223234R2			
Q9001	IC,STR-F6676	△ 22241698	NASW-7351		
Q9002	PHT CPL,ON3131-R	24120044	C-No	Description	Part number
Q9003,Q9004	IC,SI-3120C	22241699	[SEMI CONDUCTOR]		
Q9005	IC,SI-8050S	22241700	D7506	LED,SEL2210S1	225297
Q9006	TR,2SA950-Y	2211504	D7508	LED,SEL2910A-TP6	225390
Q9007	IC,SE005N	22241233	Q7508,Q7510	TR,RN1407	2216260R2
[TRANS COIL]			[SW TRM]		
L9001	CHOKE COIL,NCH-3561	△ 231280	P7504	PLUG,NPLG-4P132	25055148
L9002	FR CORE,BL02RN1-R62	△ 230905	S7520	PUSH SW,NPS-111-S662	25035699
L9003-L9007	CHOKE COIL,NCH-1490	231253K100			
L9008	CHOKE COIL,NCH-3582K101	231303K101			
T9001	P TRANS,NPT-1428	2301560A			
[CAPACITOR]					
C9001	ET C,QETJ5224KRPT	△ 3300057			
C9002	ET C,QETJ5104KRPT	△ 3300056			
C9003	AXW C,CE04W400V-100M(AWX)	△ 3500197			
C9004	HR C,DE1005SL-221J2K	△ 3000115			
C9008	XJ C,QXJ2J-103K-TPT	△ 3000114			
C9009	IS C,DE1610E 472M-KX	△ 3300052			
C9010-C9014	PW C,CE04W16V-1000M(PW)	393741027			
C9015	ELECT C,CE04W50V-220M	354782219			
C9016	PW C,CE04W16V-470M(PW)	393744717			
C9017,C9018	ELECT C,CE04W25V-470M	354754719			
C9019	PW C,CE04W16V-470M(PW)	393744717			
C9020,C9021	ELECT C,CE04W25V-470M	354754719			
C9024	ELECT C,CE04W50V-100M	354781019			
C9029	PW C,CE04W16V-470M(PW)	393744717			
C9031,C9032	ELECT C,CE04W16V-470M	354744719			
C9042	PW C,CE04W16V-1000M(PW)	393741027			
[RESISTOR]					
R9001	METAL PR,MPC74-5WK-0.22	△ 4000076			
R9002	METAL O R,RS2WBJ-0.22	△ 441722294F			
R9003	METAL O R,RS2WBJ-68K	△ 441726834NF			
R9004	METAL O R,RS1/2WBJ-680	443526814			
R9005	METAL O R,RS1/2WBJ-5.6K	443525624			
R9007	METAL O R,RS1/2WBJ-1K	443521024			
R9008	METAL O R,RS2WBJ-47K	△ 441724734F			
R9009	METAL O R,RS1/2WBJ-1K	443521024			
R9010	METAL O R,RS1/2WBJ-47	443524704			
R9011,R9012	METAL R,RNU1/2WCJ-1	453530104			

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY MARK △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

IC BLOCK DIAGRAM AND DESCRIPTION - 2 FL TUBE, BJ843GNK (Q7503)

GRID ASSIGNMENT



PIN CONNECTION

PIN NO.	54	44	44	44	44	44	44	44	33	33	33	33	33	33	22	22	22	22	22	22	11	11	11	11	11	11	11	11	09	87	65	43	21	
CONNECTION	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	N	N	N	N	G	G	G	G	G	G	G	G	G	G	G	P	P	-

PIN NO.	66	65	55	55	55	55	55
CONNECTION	F	F	N	3	3	3	2

- NOTE
- 1) F-, F+ --- Filament
 - 2) NP ----- No pin
 - 3) DL ----- Datum Line
 - 4) 1G~16G --- Grid
 - 5) 視 野 角 は、下 側 28.8°MIN と す る。

6) NC ----- No connection
(NC pin should be electrically open on the PC board)

The test menu operation method - 1

<How to a test menu (level 2) to enter>

1. Change unit into a standby mode.
 2. Push the DISPLAY key and the STOP key simultaneously.
 - > It is displayed on FL tube as "TEST MODE", and will be in an all-points light state in about 1 second (test mode level 1 state).
 3. Push the CD key and the HDD key.
 - > It is displayed on FL tube as "SYSTEM INIT."
- It shifts to test mode level 2 state above.

<How to slip out of a test menu (level 2)>

When menus, such as "SYSTEM INIT", are displayed, the DISPLAY key and the STOP key are pushed simultaneously.

- > It is displayed as "NORMAL MODE" and returns to a standby state.

<Test menu outline>

SYSTEM INIT:

Initialization of a flash ROM and initialization of HDD are performed.

DOWNLOAD START:

It shifts to the software rewriting mode of a main program.

FLASH REBUILD:

The information currently recorded on HDD is reconstructed on a flash ROM.

KEY FUNCTION:

A key function is displayed (with no necessity of using it at the time of a maintenance).

VERSION:

The version of each program is displayed.

The above-mentioned menu is displayed by turning JOG after test mode shift.

The selected function is performed when JOG is pushed.

<SYSTEM INIT functional details>

[Method]

1. Choose a menu as "SYSTEM INIT" and push JOG.
2. The message of a check is displayed on FL pipe as "Really?." Please push the YES key, when you perform. Please push the NO key, when you cancel.
3. It is automatic in order of "flash initialization ->HDD initialization",
4. "INIT COMPLETE! If "is displayed, it will be completion of operation.

[Notes]

- If this function is performed, the music data currently recorded on all HDD and the inputted tag data will be disappeared and lost. Be fully careful of handling.
- When HDD is exchanged for a new one, please be sure to perform initialization of HDD and a flash ROM using this function.
 - An incorrect operation will be caused if equipment is used without performing this function.
- When the power supply of equipment falls by a certain reason while performing this function, please perform again.
 - An incorrect operation will be caused if equipment is used in the state where it is initialized halfway.

[The use pattern assumed]

- When HDD is exchanged

<DOWNLOAD START functional details>

[Methode]

1. Choose a menu as "DOWNLOAD START" and push JOG.
2. The message of a check is displayed on FL pipe as "Really?." Please push the YES key, when you perform. Please push the NO key, when you cancel.
3. The display of FL tube disappears and the CD button and the HDD button of equipment light up after a while.
4. Connect a USB cable between unit and PC and download by starting farm download software (bluefire).

[Notes]

- It becomes impossible to use unit, once it performs this function until it next finishes writing in software.
 - Since it does not usually return to processing even if it takes out and inserts AC plug, be careful of handling enough.
- Before the CD button and the HDD button light up, even if it starts farm download software (bluefire), an error is displayed and software may not start.
 - Please restart software again after waiting to switch on the light.

<FLASH REBUILD functional details>

[Methode]

1. Choose a menu as "FLASH REBUILD" and push JOG.
2. The message of a check is displayed on FL pipe as "Really?." Please push the YES key, when you perform. Please push the NO key, when you cancel.
3. Flash ROM initialization -> perform data reconstruction processing automatically.
4. "REBUILD OK! If "is displayed, it will be completion of operation.

[Notes]

- If this function is performed, since it is unrestoreable, please understand beforehand the tag information inputted into the music data currently recorded in PCM form among the tag information inputted

(Since the domain which stores tag information does not exist in the PCM file currently recorded on HDD on the relation of a file system)

- When the power supply of equipment falls by a certain reason while performing this function, please perform again.
 - An incorrect operation will be caused if equipment is used in the state where it is reconstructed halfway.
- When the music data currently recorded on HDD exists in large quantities, this thing has time in processing.
- Please do not perform this function to HDD which has not performed SYSTEM INIT processing once.
 - It is in the middle of of operation, and may hang-up.

[The use pattern assumed]

- When substrate exchange is performed

The test menu operation method - 2

<VERSION functional details>

[Real whereabouts method]

1. Combine a menu with "VERSION" and push JOG.
2. The version of each farm is displayed. A display can be changed by turning JOG.

The contents displayed are as follows.

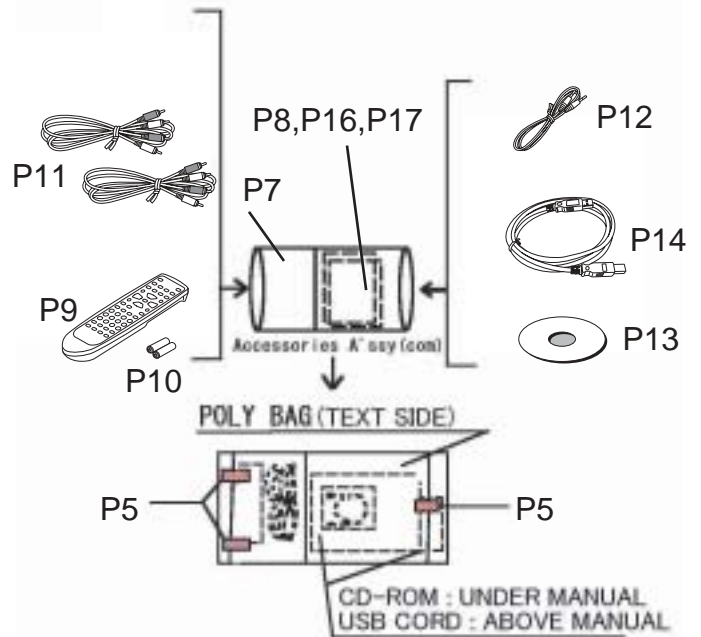
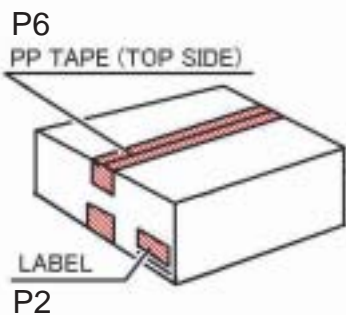
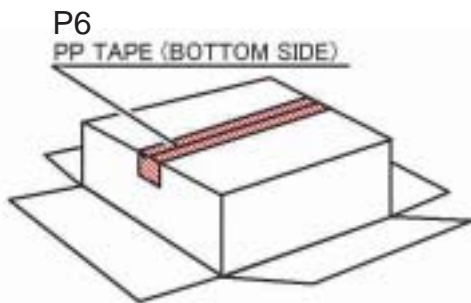
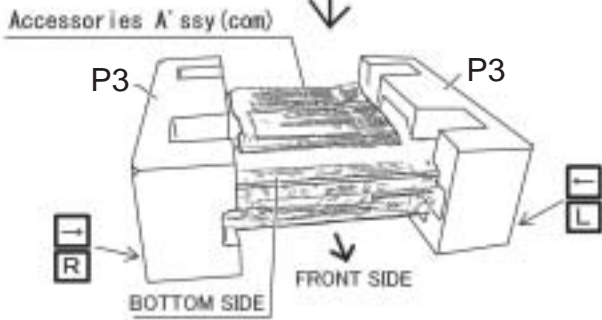
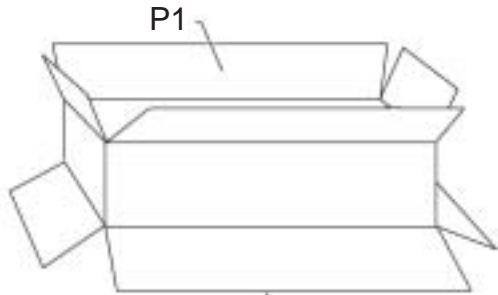
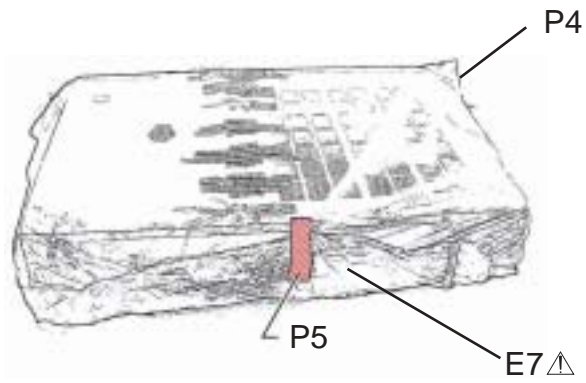
- Main
Soft version number currently recorded on the external flash ROM (whole charge of operation)
- Boot
Soft version number currently recorded in CPU (V850) of a main board (starting processing charge)
- Disp
Soft version number currently recorded on CPU of a display board (display processing charge)
- USB
Soft version number currently recorded in CPU (MB89) of a main board (USB communication charge)
- The soft version number currently recorded on the QP-B....
QP ICT board (device control charge)

Please push the MENU/EXIT key, when you escape from this mode.

[Notes]

- When you check the version of QP ICT software (QP-B), please reboot unit.
Please perform this function again and check a version, after performing "POWER ON-> standby state ->OFF."

PACKING VIEW



No.	Description	Part number
[PACKING]		
P1	CARTON	29053828
P2	UPC LABEL	29362972
P3	PAD AS	29092031B
P4	POLY BAG (700x600)	29100141A
P5	CELLOPHANE TAPE, NITTO NO.29	29110149
P6	TAPE,NITTO 3301	29110141
△ E7	AC CORD,AS-UC-2	253297KAW
[ACCESSARY]		
P7	POLY BAG (350x200xW250)	29100201
P8	WARRANTY CARD	29365089
P9	REMOTE CONTROL UNIT, RC-467P	24140467
P10	BATTERY,UM-3	3010054
P11	PIN-CORD AS	2010238
P12	CORD AS (RI)	2010200
P13	CD-ROM (MB-S1)	292174A
P14	CORD AS (USB-1M)	2010391
P16	INS MANUAL,E(HDR-1)	29343225A
P17	INST SHEET,(HDD-E)	29355373

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