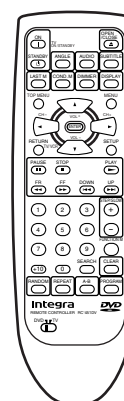
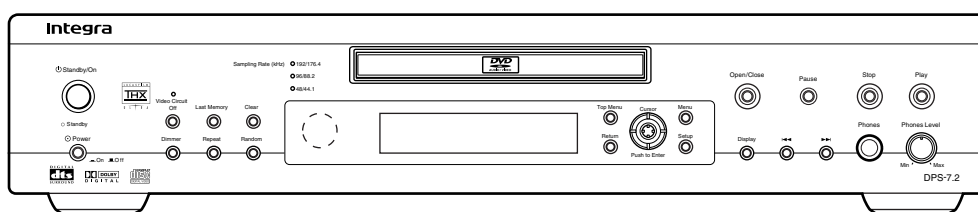


Integra SERVICE MANUAL

DVD AUDIO/VIDEO PLAYER MODEL DPS-7.2



RC-451DV

Black model

BMDD1N	120V AC, 60Hz
--------	---------------

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.

SPECIFICATIONS

■ DVD Player

Power supply	AC 120 V, 60 Hz
Power consumption	16 W
Weight	3.6 kg, 7.9 lbs.
External dimensions	435 × 91 × 314 mm (W/H/D), 17-1/8" × 3-9/16" × 12-3/8"
Signal system	Standard NTSC
Regional restriction code	1
Laser	Semiconductor laser, wavelength 650 nm
Frequency range (digital audio)	DVD linear sound: 48 kHz sampling 4 Hz to 22 kHz 96 kHz sampling 4 Hz to 44 kHz DVD-Audio: 192 kHz sampling 4 Hz to 96 kHz Audio CD: 4 Hz to 20 kHz
Signal-to-noise ratio (digital audio)	More than 106 dB
Audio dynamic range (digital audio)	More than 100 dB
Harmonic distortion (digital audio)	Less than 0.005 %
Wow and flutter	Below measurable level (less than ±0.001 % (W.PEAK))
Operating conditions	Temperature: 5°C to 35°C, Operation status: Horizontal

■ Outputs

Video output	1.0 V (p-p), 75 Ω, negative sync., pin jack × 2
S-video output	(Y) 1.0 V (p-p), 75 Ω, negative sync., Mini DIN 4-pin × 2 (C) 0.286 V (p-p), 75 Ω
Component video output	(Y) 1.0 V (p-p), 75 Ω, negative sync., pin jack × 2 (P ^B)/(P ^R) 0.7 V (p-p), 75 Ω
Audio output (digital output Optical)	Optical connector × 2
Audio output (digital output Coaxial)	0.5 V (p-p), 75 Ω, pin jack × 1
Audio output (analog audio)	2.0 V (rms), 470 Ω, pin jack (L, R) × 2
Audio output (5.1 channel analog audio)	2.0 V (rms), 470 Ω, pin jack (FRONT L, FRONT R, CENTER, SURR L, SURR R, SUB WOOFER) × 1

Specifications and features are subject to change without notice.

SERVICE PROCEDURES-1

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

SERVICE WARNING : DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICKUP BLOCK.

Laser Diode Properties

CD

Wavelength: 650 nm
Laser output: 0.43 mW

DVD

Wavelength: 780 nm
Laser output: 0.14 mW

WARNING

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN

AVIS
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

LASER WARNING

This unit contains a semiconductor laser system and is classified as a "CLASS 1 LASER PRODUCT". So, to use this model properly, read this Instruction Manual carefully. In case of any trouble, please contact the store where you purchased the unit. To prevent being exposed to the laser beam, do not try to open the enclosure.

CAUTION:

VISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. DO NOT STARE INTO BEAM.

CAUTION:

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

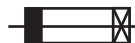
The label on the right is applied on the rear panel except for USA and Canadian models.

**"CLASS 1 LASER
PRODUCT"**

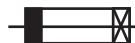
1. This unit is a CLASS 1 LASER PRODUCT and employs a laser inside the cabinet.
2. To prevent the laser from being exposed, do not remove the cover. Refer servicing to qualified personnel.

SERVICE PROCEDURE

1. Replacing the fuses



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



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.

REF. NO.	PART NO.	DESCRIPTION
F1	252147 or	1.6A-TSC or
	252252	1.6A-T/UL-ST2

2. Safety-check out

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 terminal GND on the back panel. Specifications: More than 10M ohm at 500V

LASER BEAM CAUTION LABEL

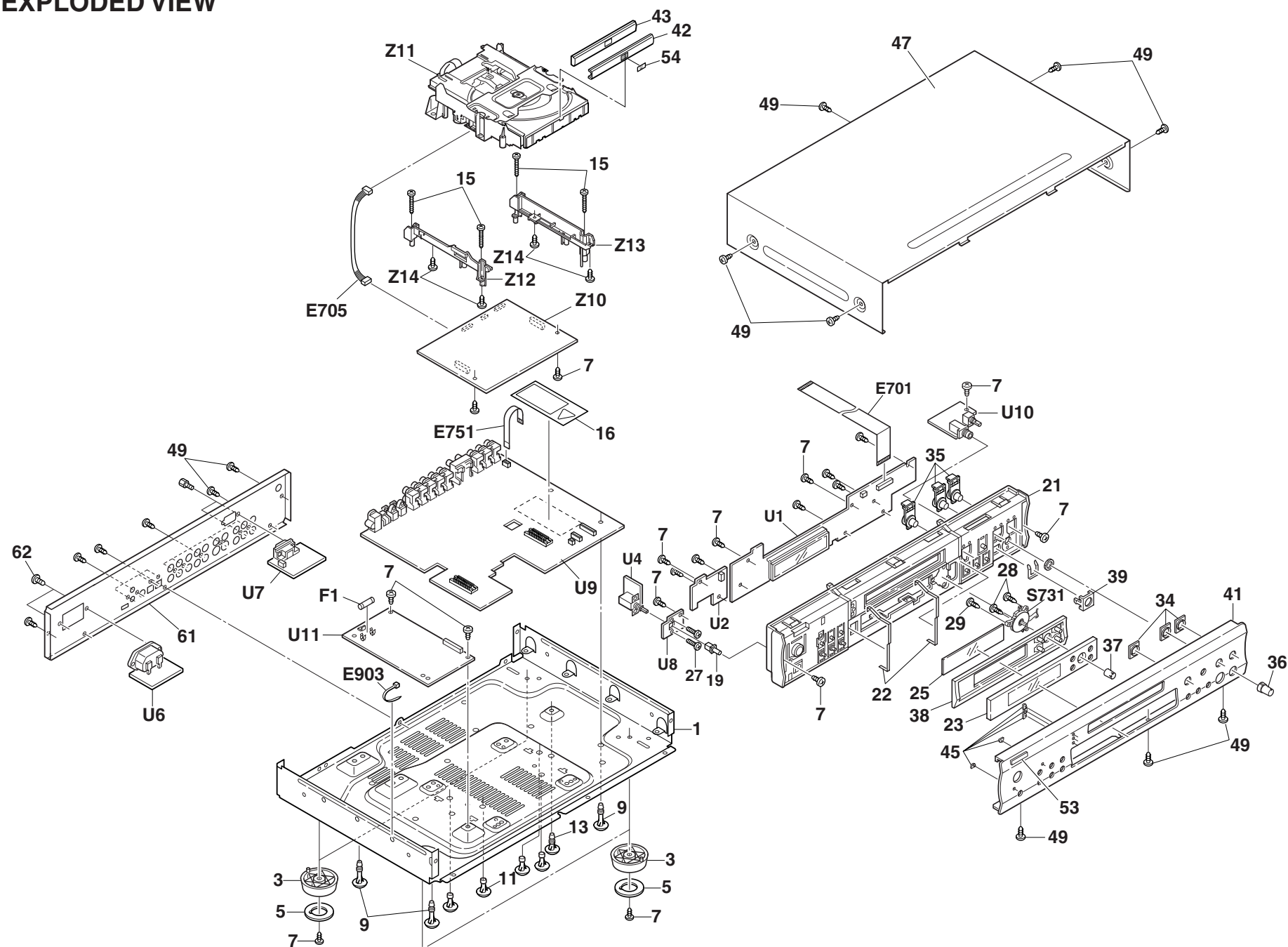


WAVE LENGTH:650nm
MAXLASER POWER:0.5mW
波 長: 650nm
最大レーザー出力: 0.5mW

98764160



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

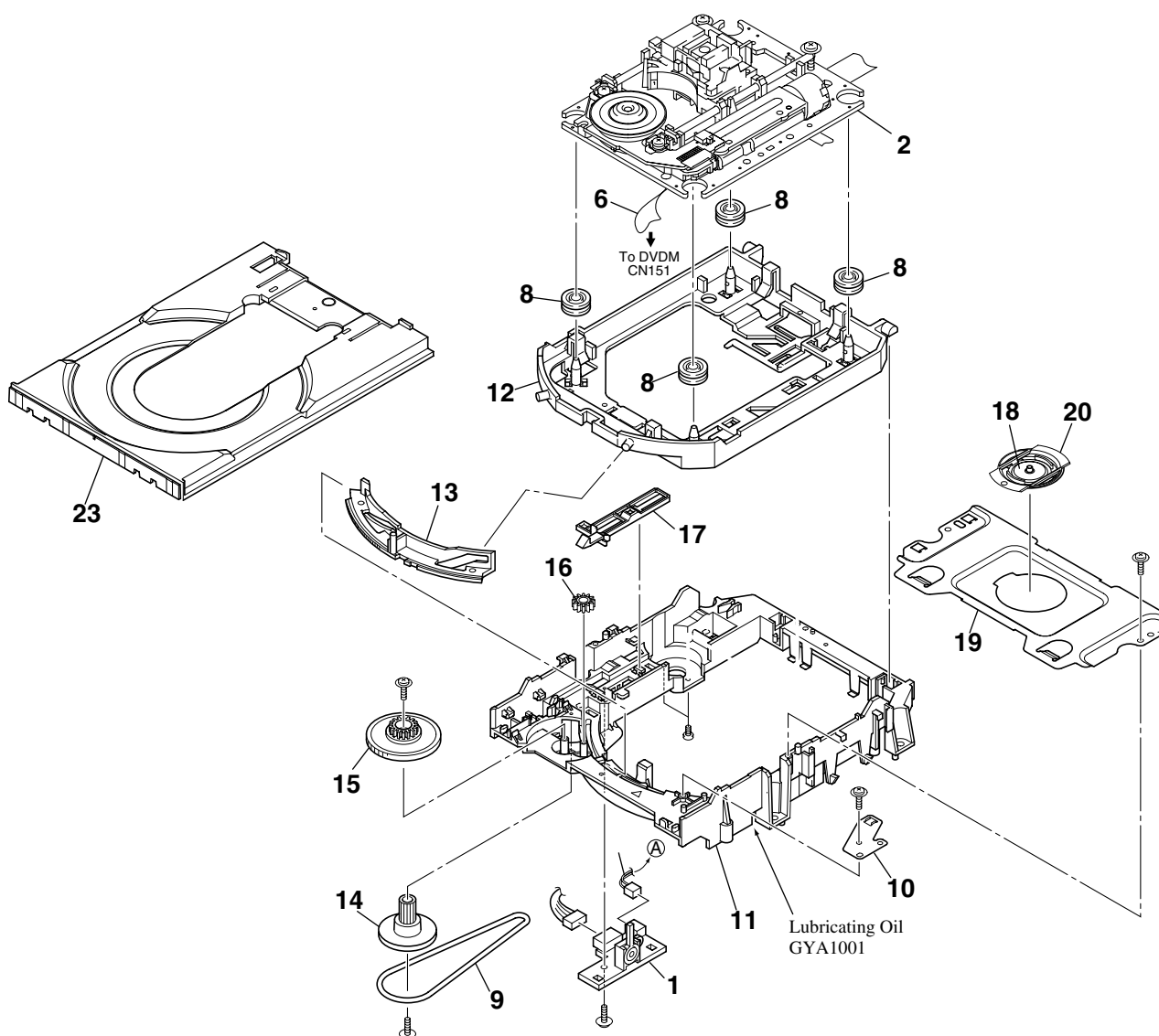
REF.NO.	PART NO.	DESCRIPTION
1	27100399A	Chassis
3	27175316B	Leg
5	28141332	Cushion
7	838130088	3TTB+8B, Self tapping screw
9	27190428A	KGLS-10RF, Holder
11	27191112	KGPS-6RF, Holder
13	27190693	KGLS-6R, Holder
15	838130208	3TTB+20B, Self tapping screw
16	29362584	 Label DVD
19	28325753	Knob power
21	27111221A	Front bracket
21	28325756	Knob, STANDBY
23	28191928	Clear plate
25	28133398	B plate
27	82143010	3P+10FN(BC), Pan head screw
28	838126068	2.6TTB+6B, Self tapping screw
29	838426088	2.6TTB+8B(BC), Self tapping screw
31	28198935	Facet, PLAY
34	27268054	Guide, knob
35	28325958	Knob G, OPEN AS
36	28325452	Knob, MIC
37	28325933	Knob, CRS
38	27191142A	Holder, PLT
39	27191155	Holder, HP
41	27212327A	Front panel
42	28148488	Door
43	28148491	Door, MOULD
45	28198906	Facet, S

REF.NO.	PART NO.	DESCRIPTION
47	28184808	Top cover
49	838430088	3TTB+8B(BC), Self tapping screw
53	28135278	Badge
54	28135284	Badge, DVD-AUDIO
62	838440089	4TTC+8C(BC), Self tapping screw
61	27122903B	Rear panel
E701	2045222012	NCFC5-222012, Flexible flat cable
E705	2009990702UL	NSAS-10P0978
E751	2045081212	NCFC5-081212, Flexible flat cable
E903	260208	Binder, UL
F1	252147 or	 1.6A-TSC or
	252252	 1.6A-T/UL-ST2
S731	25035710	NPS-115-S673, Cursor switch ass'y
Z10	24150022	DB-VPB302, Main PC board ass'y
Z11	24801010	DB-VLD301-006, DVD mechanism ass'y
Z12	24840149A	DB-VAC301, adapter(L)
Z13	24840150A	DB-VAC302, adapter(R)
U1	1H465515-1G	NADIS-7215-1G, Display PC board ass'y
U2	1H465516-1G	NADIS-7216-1G, Control switch PC board ass'y
U4	1H465518-1G	NASW-7218-1G, Power switch PC board ass'y
U6	1H465520-1G	NAPS-7220-1G, AC inlet PC board ass'y
U7	1H465515-1G	NAETC-7221-1G, RS-232C connector PC board ass'y
U8	1H465515-1B	NAETC-7222-1B, Holder PC board ass'y
U9	1H465524-1D	NAAR-7224-1D, Output terminal PC board ass'y
U10	1H465525-1D	NAETC-7225-1D, Phones jack PC board ass'y
U11	24150020A	 NGPS-0020-120V, Power supply unit

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

EXPLODED VIEWS OF MECHANISM

DVD MECHANISM : DB-VLD301-006

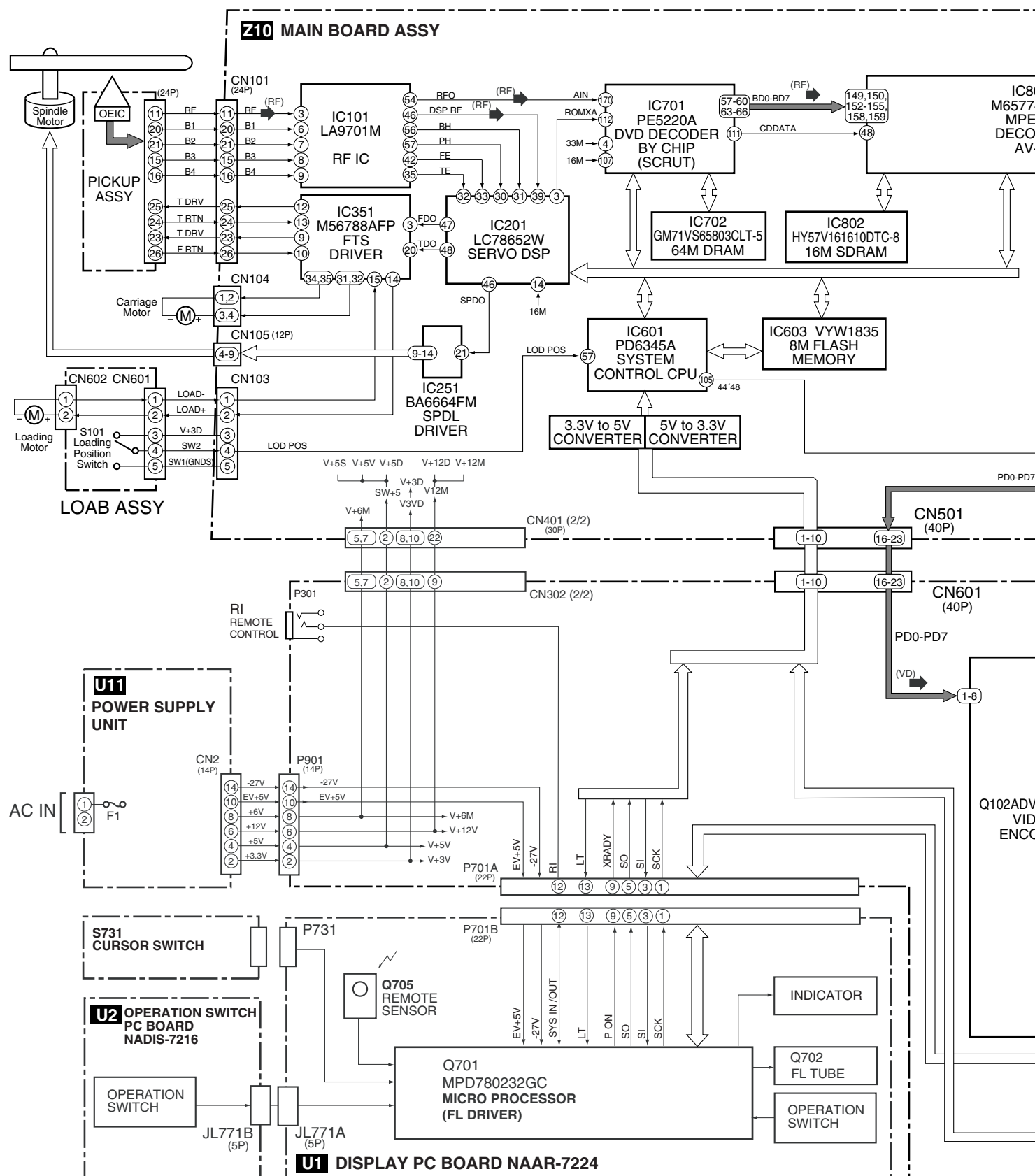


PARTS LIST

REF.NO	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	VNP1836	Loading PC board assy	12	VNL1918	Float base DVD
2	VXX2782	Traverse mechanism assy	13	VNL1919	Drive cam
6	VDA1864	Flexible cable 26P	14	VNL1921	Gear pulley
8	VEB1327	Float rubber	15	VNL1922	Loading gear
9	VEB1328	Belt	16	VNL1923	Drive gear
10	VNE2253	Stabilizer	17	VNL1925	SW lever
11	VNL1917	Loading base	18	VNE2251	Clamper plate
			19	VNE2252	Bridge
			20	VNL1924	Clamper
			23	VNL1920	Tray

BLOCK DIAGRAMS-1

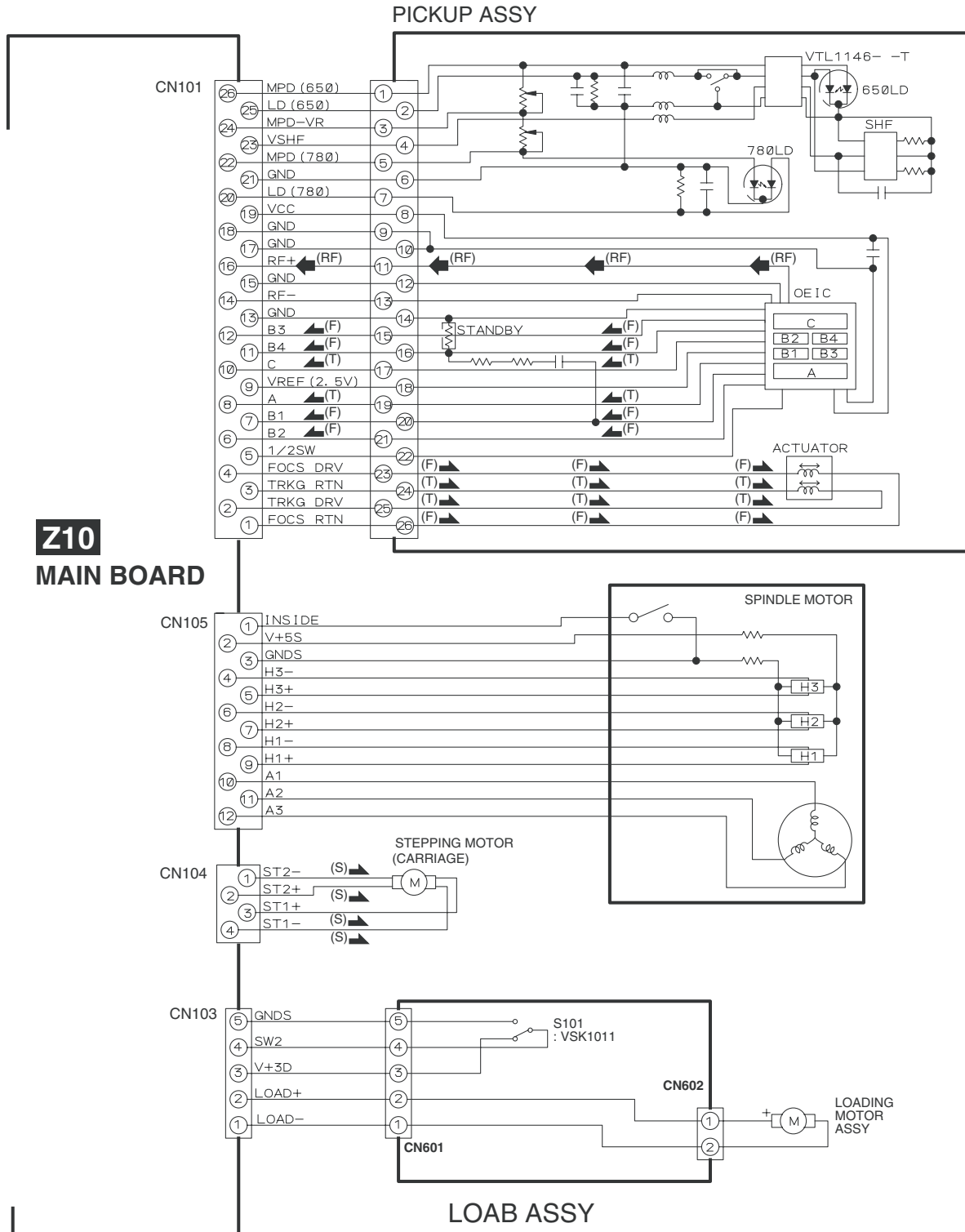
OVERALL



BLOCK DIAGRAMS-2

MECHANISM SECTION

(RF) : RF SIGNAL ROUTE
 (F) : FOCUS SERVO LOOP LINE
 (T) : TRACKING SERVO LOOP LINE
 (S) : SLIDER SERVO LOOP LINE

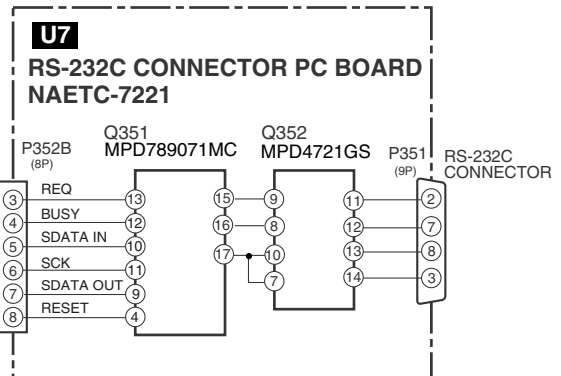
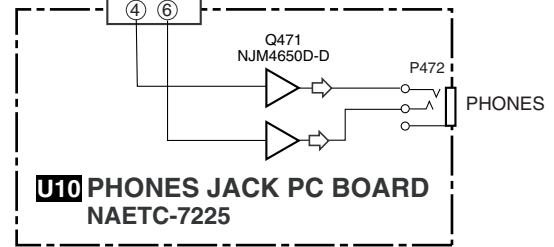
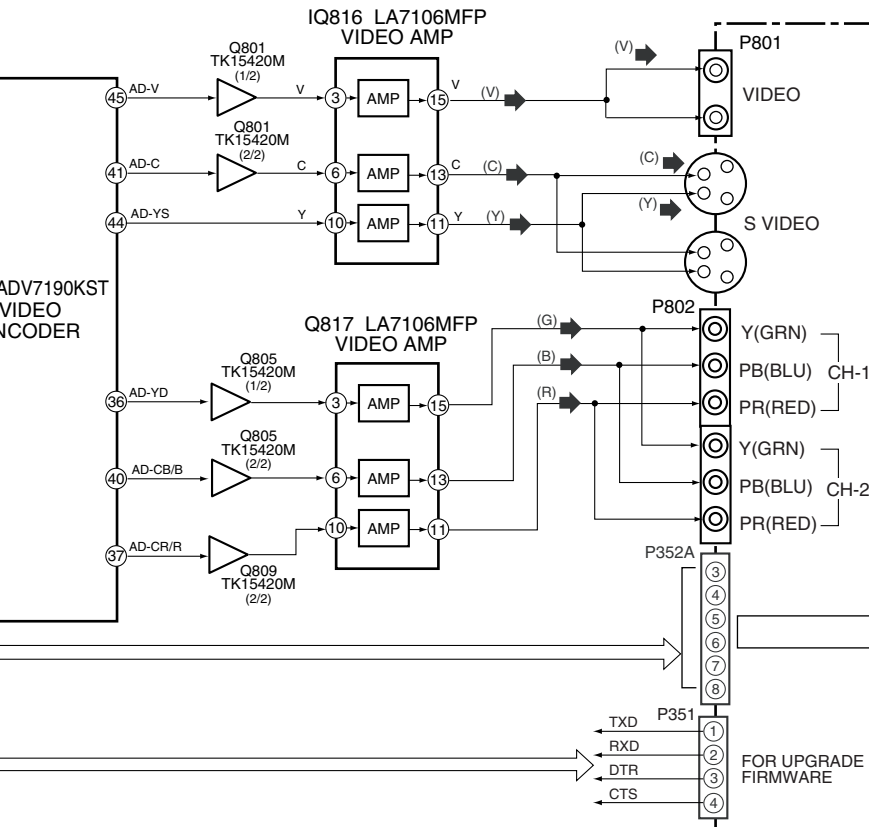
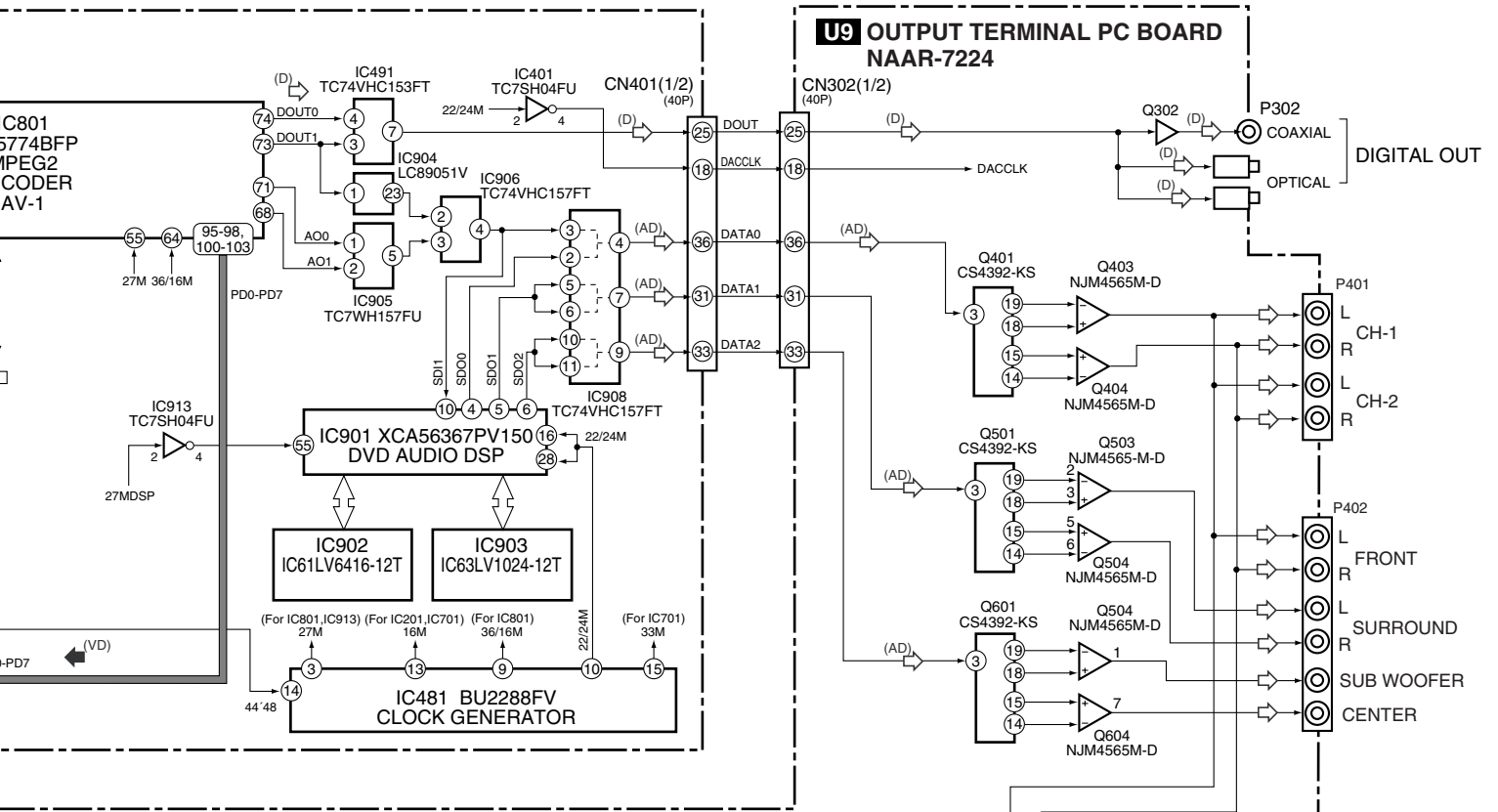
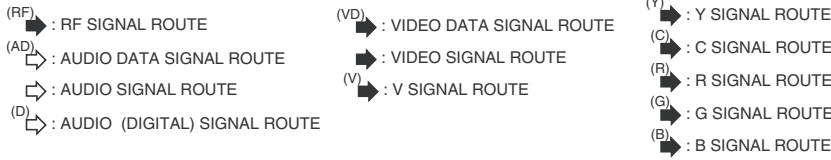


E

F

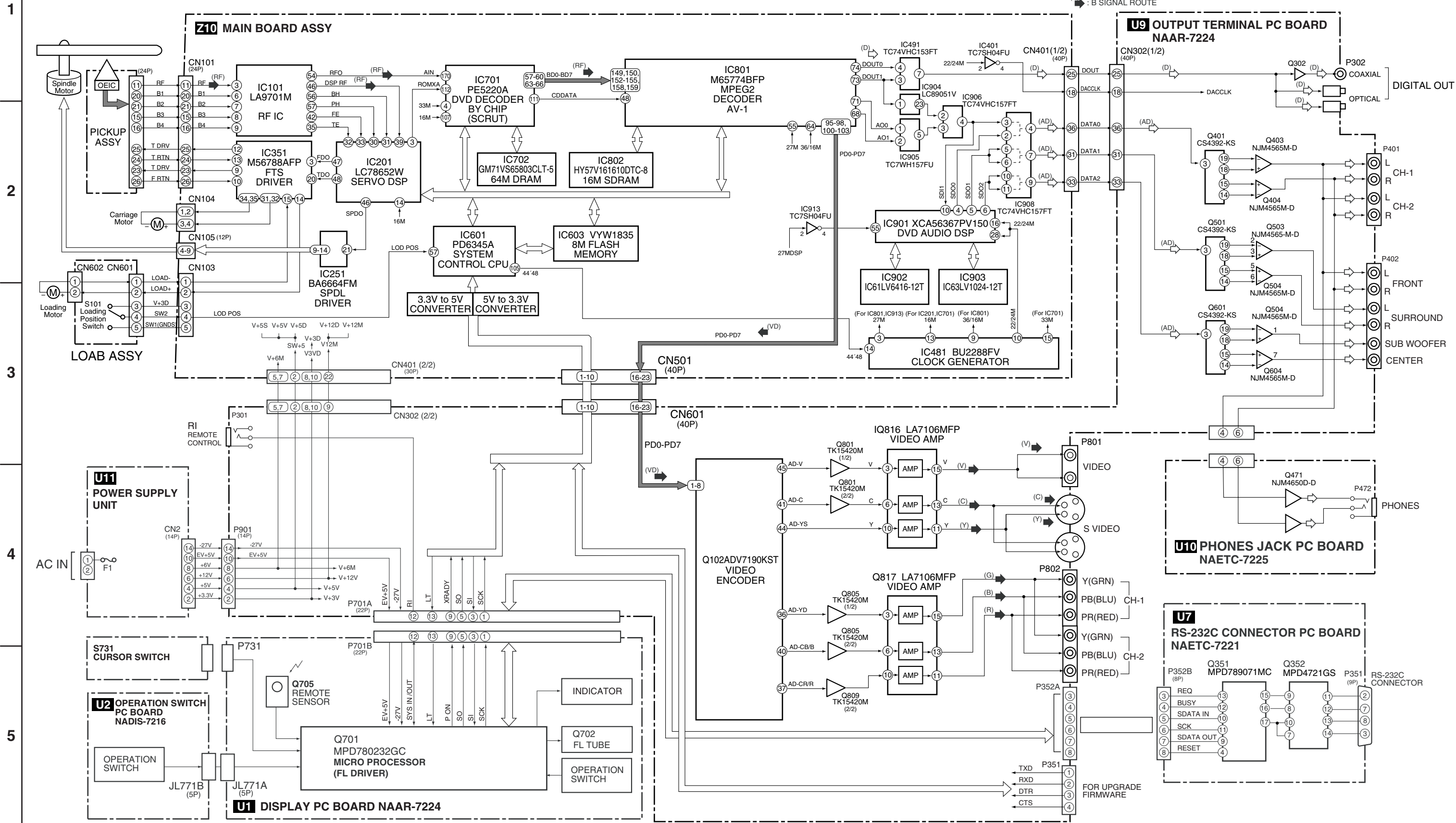
G

H

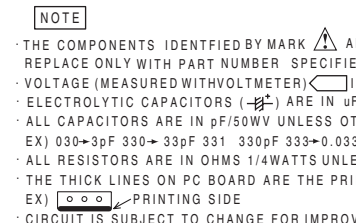


BLOCK DIAGRAMS-1
OVERALL

(RF) : RF SIGNAL ROUTE
(AD) : AUDIO DATA SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
(D) : AUDIO (DIGITAL) SIGNAL ROUTE
(VD) : VIDEO DATA SIGNAL ROUTE
: VIDEO SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
(C) : C SIGNAL ROUTE
(R) : R SIGNAL ROUTE
(G) : G SIGNAL ROUTE
(B) : B SIGNAL ROUTE



5



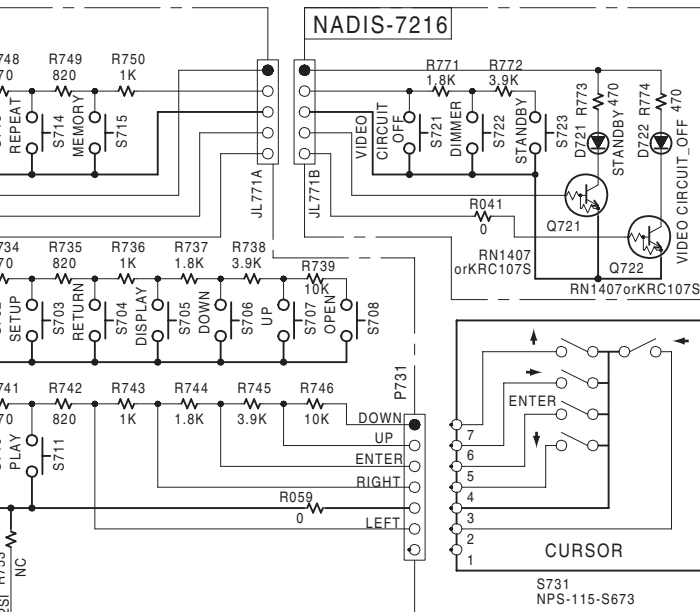
E

F

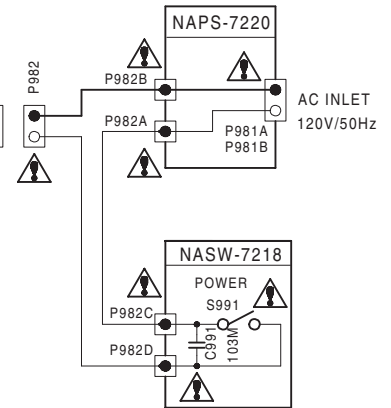
G

H

U2 OPERATION SWITCH PC BOARD

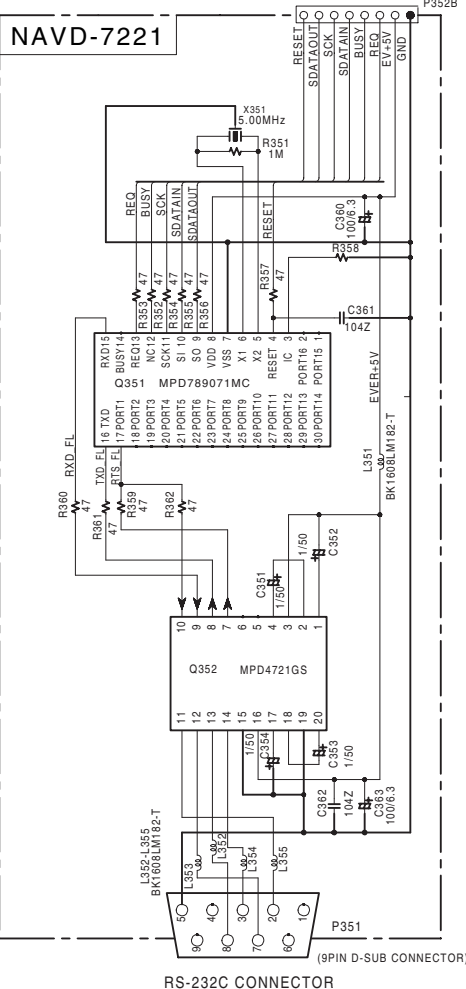


U6 AC INLET PC BOARD



U4 POWER SWITCH PC BOARD

U7 RS-232C CONNECTOR PC BOARD



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

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.

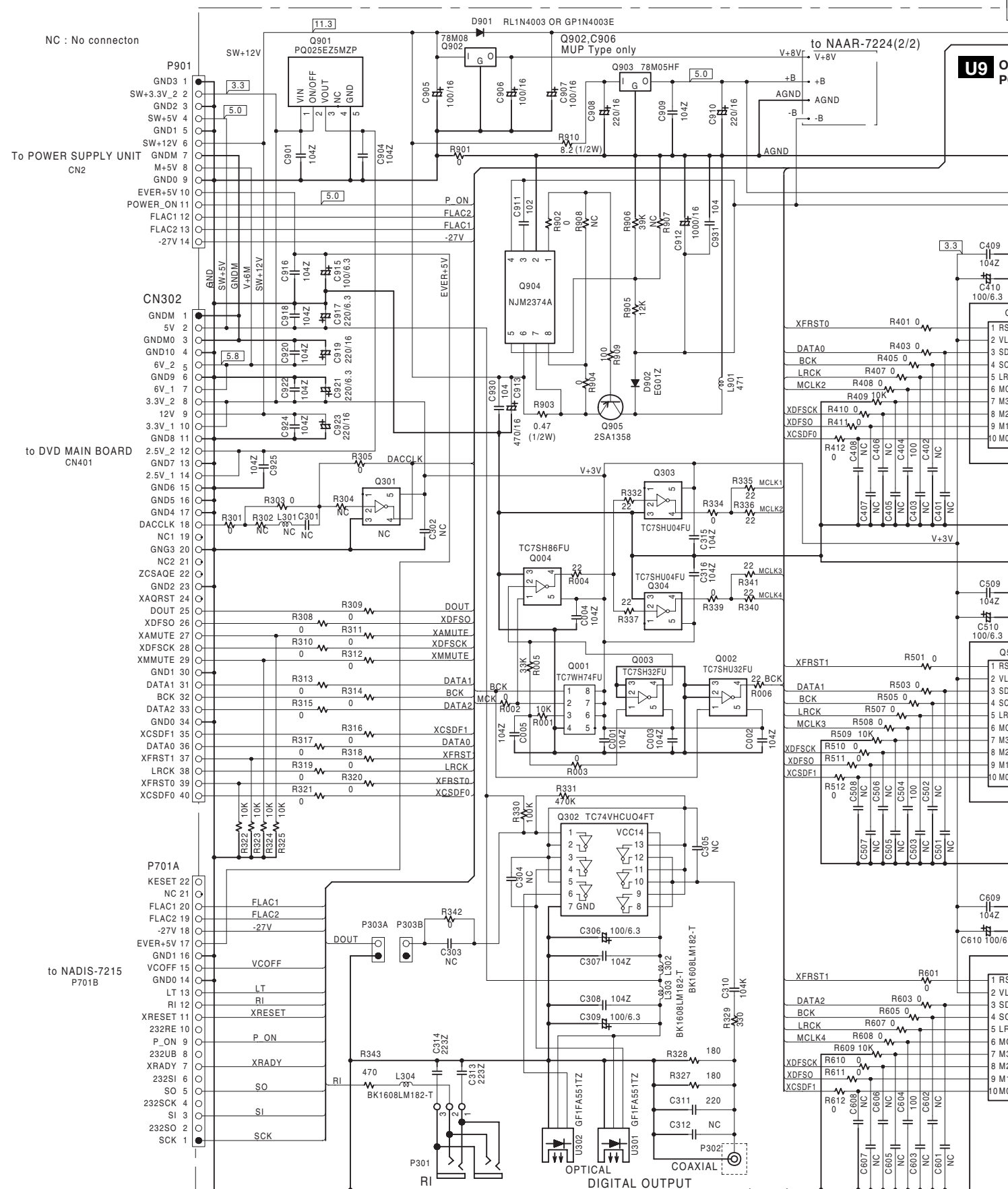
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

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

ARE CRITICAL FOR SAFETY.
IFIED.
IS DCVOLTAGE. (NO INPUT SIGNAL)
N UP/WV.
S OTHERWISE NOTED.
.033uF
UNLESS OTHERWISE NOTED.
PRINTING SIDE OF THE PARTS.
PROVEMENT.

RS-232C CONNECTOR

SCHEMATIC DIAGRAMS-2



E

F

G

H

NAAR-7224 (1/2)

P471B

to NAAF-7225
P471A

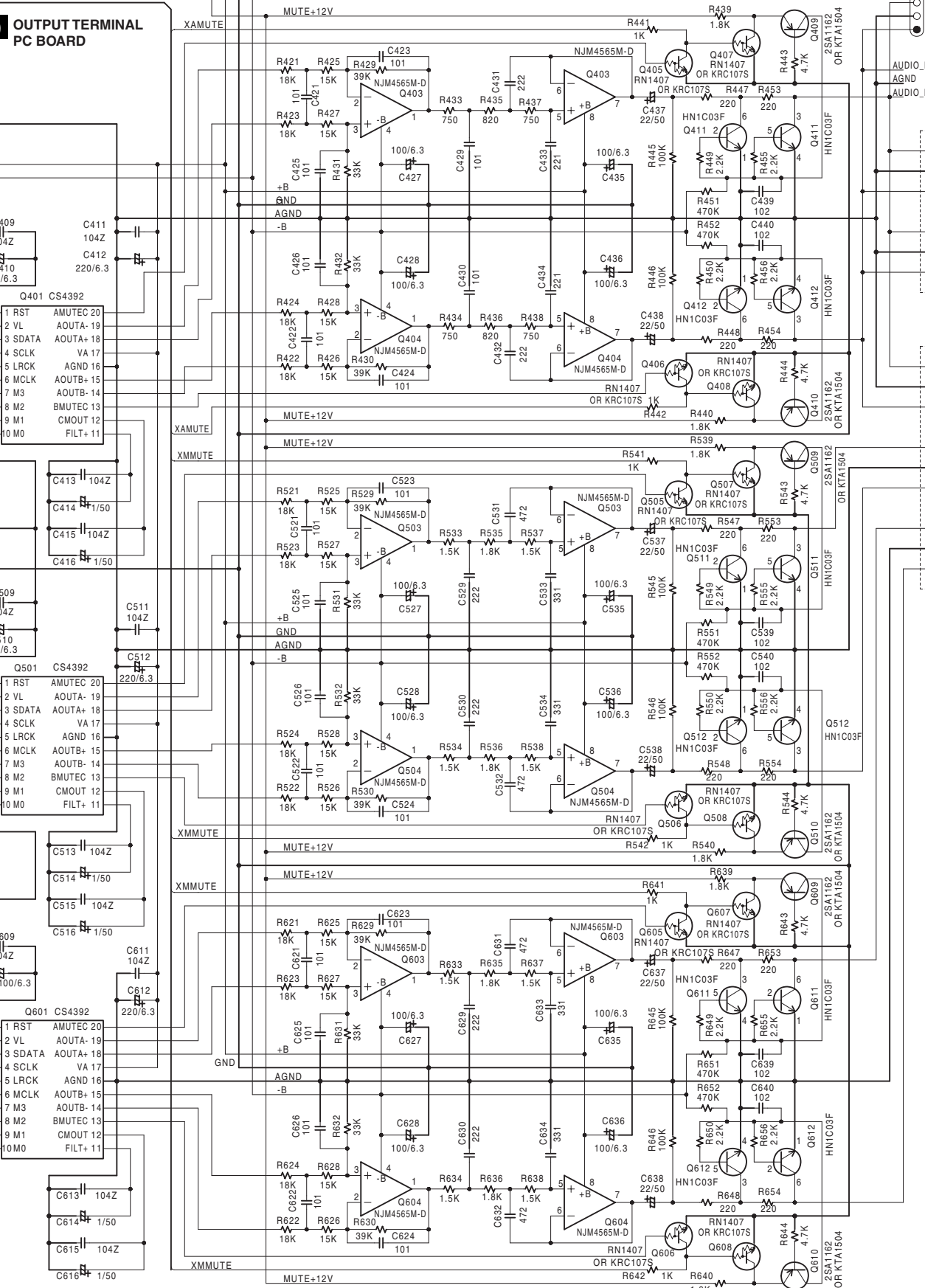
to P250A(AV CONNECTOR)
MUP Type only

P401
L CH-1
R
L CH-2
R

ANALOG OUTPUT

P402
L FRONT
R
L SURR
R
SUBWOOFER
CENTER

OUTPUT TERMINAL
PC BOARD

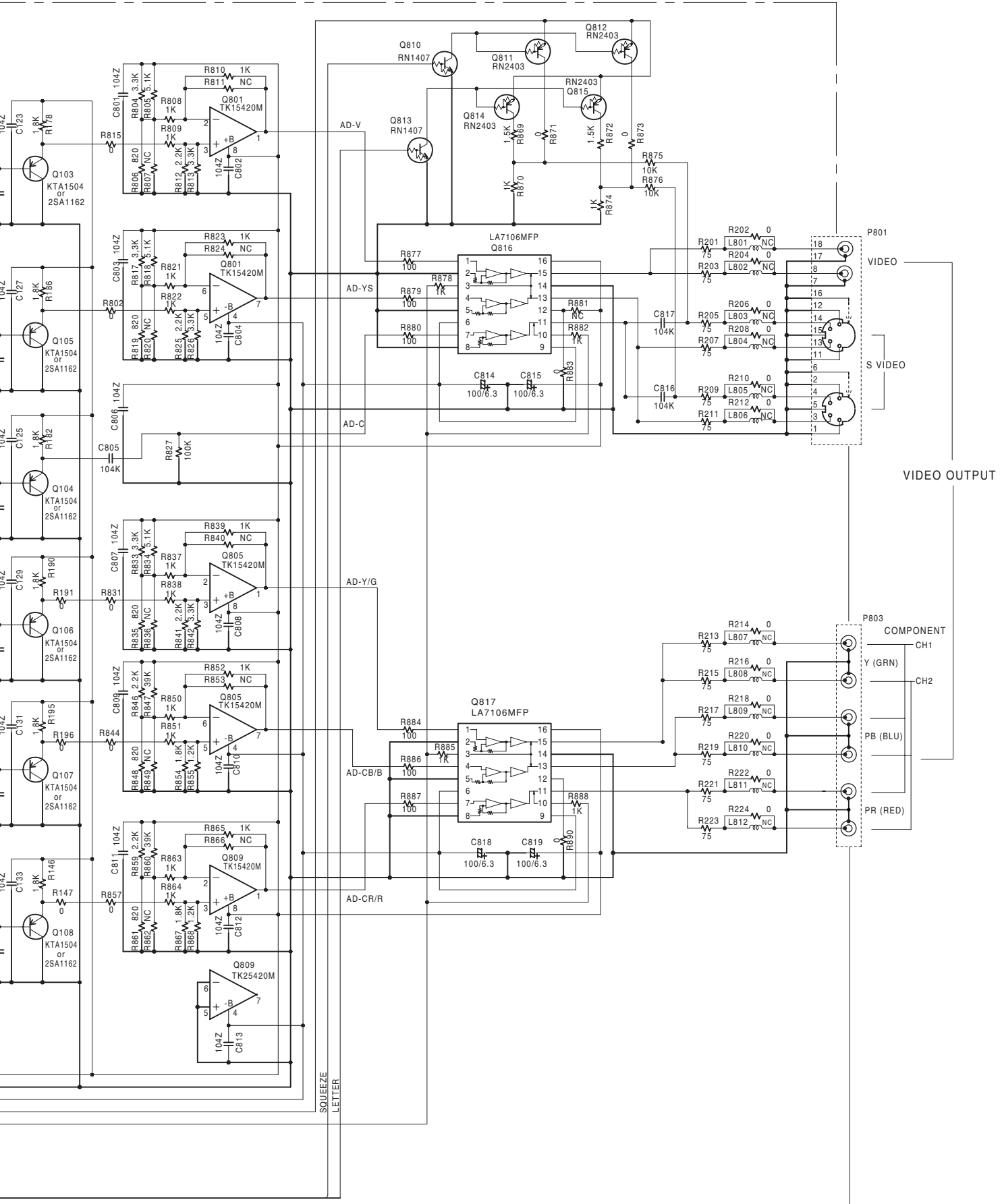


E

F

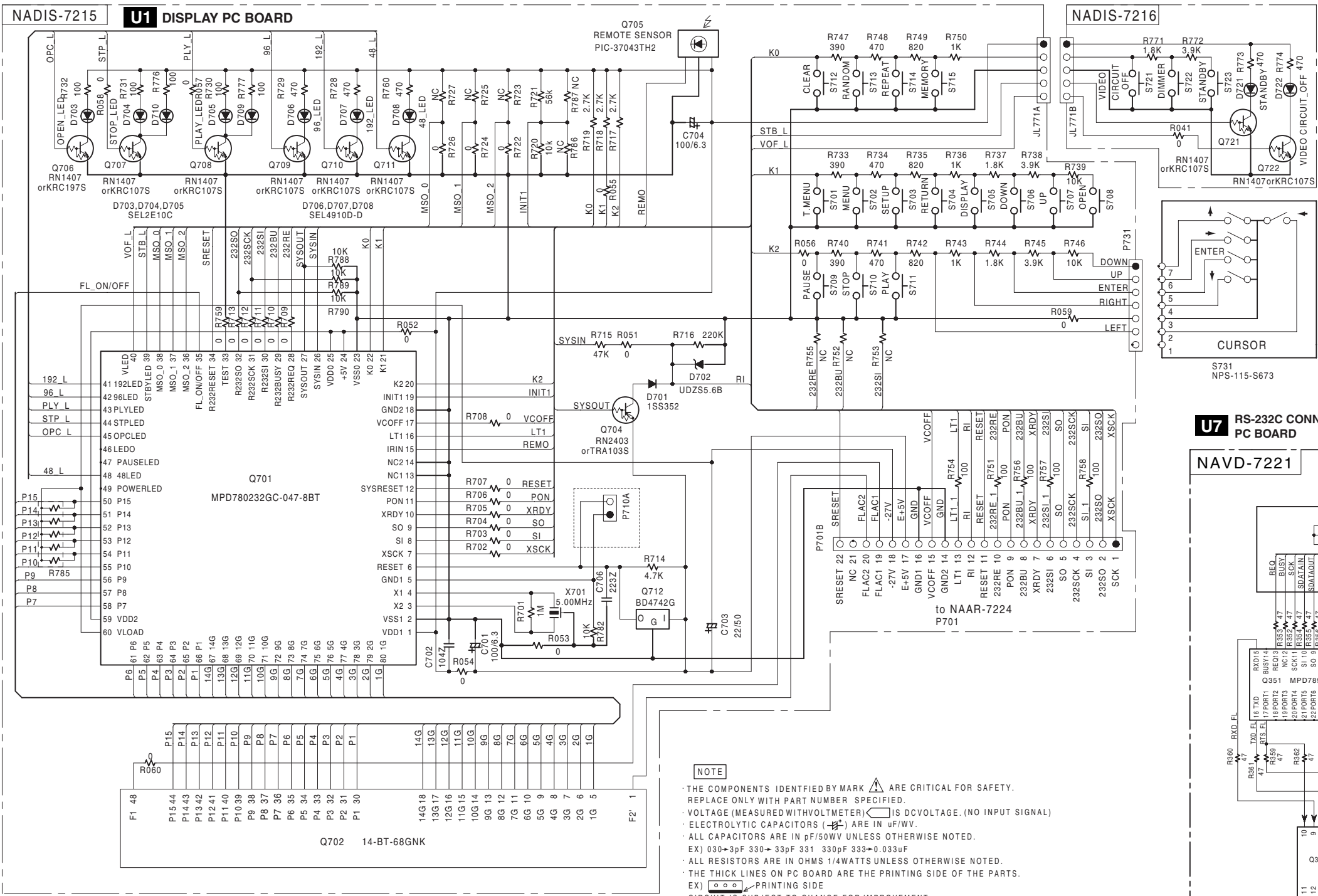
G

H



SCHEMATIC DIAGRAMS-1

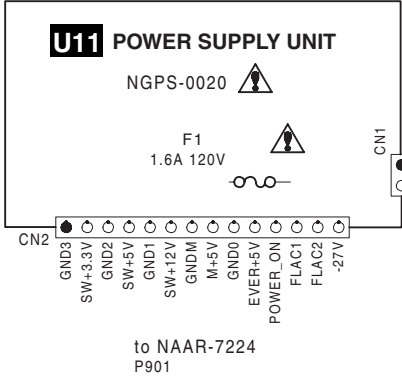
1
2
3
4
5



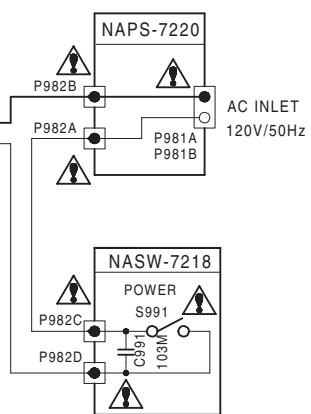
NOTE

- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLT METER) IS DC VOLTAGE. (NO INPUT SIGNAL)
- ELECTROLYTIC CAPACITORS () ARE IN μ F/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030+3pF 330+33pF 331 330pF 333+0.033 μ F
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

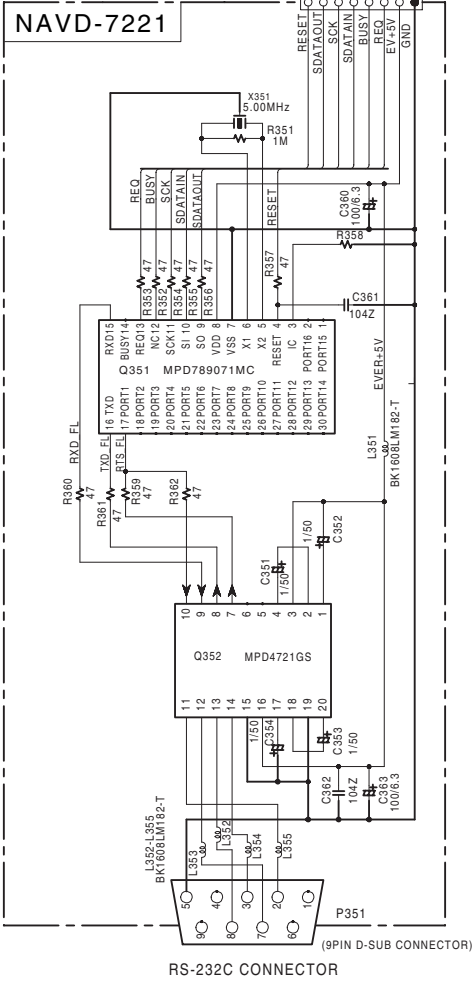
U2 OPERATION SWITCH PC BOARD



U6 AC INLET PC BOARD



U7 RS-232C CONNECTOR PC BOARD



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.

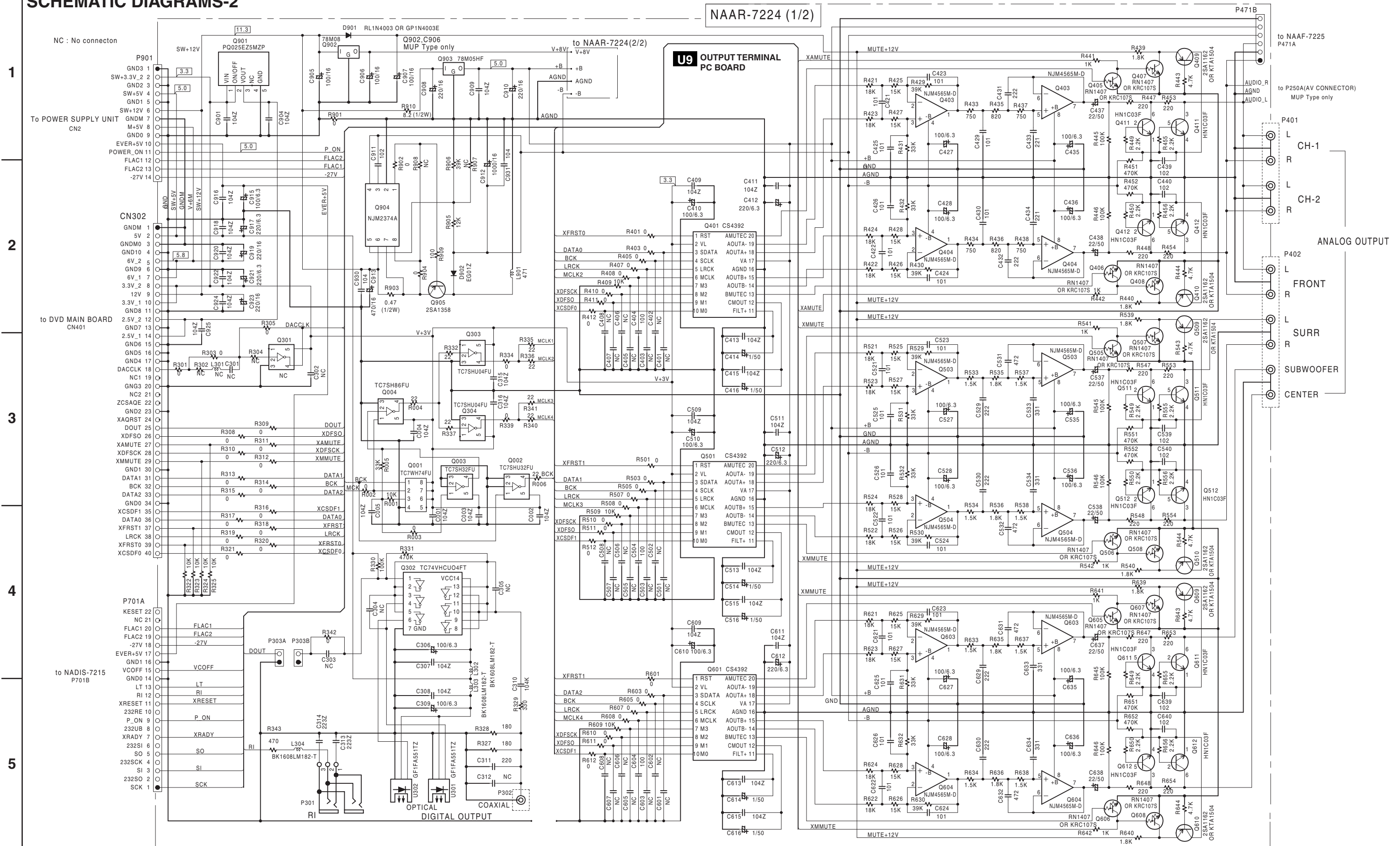
CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST E LENT. POUR UNE PROTECTION PERMANENTE, N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DERNIER EST INDIQUE LA QU LE PRESENT SYMBOLE EST APPOSE.

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

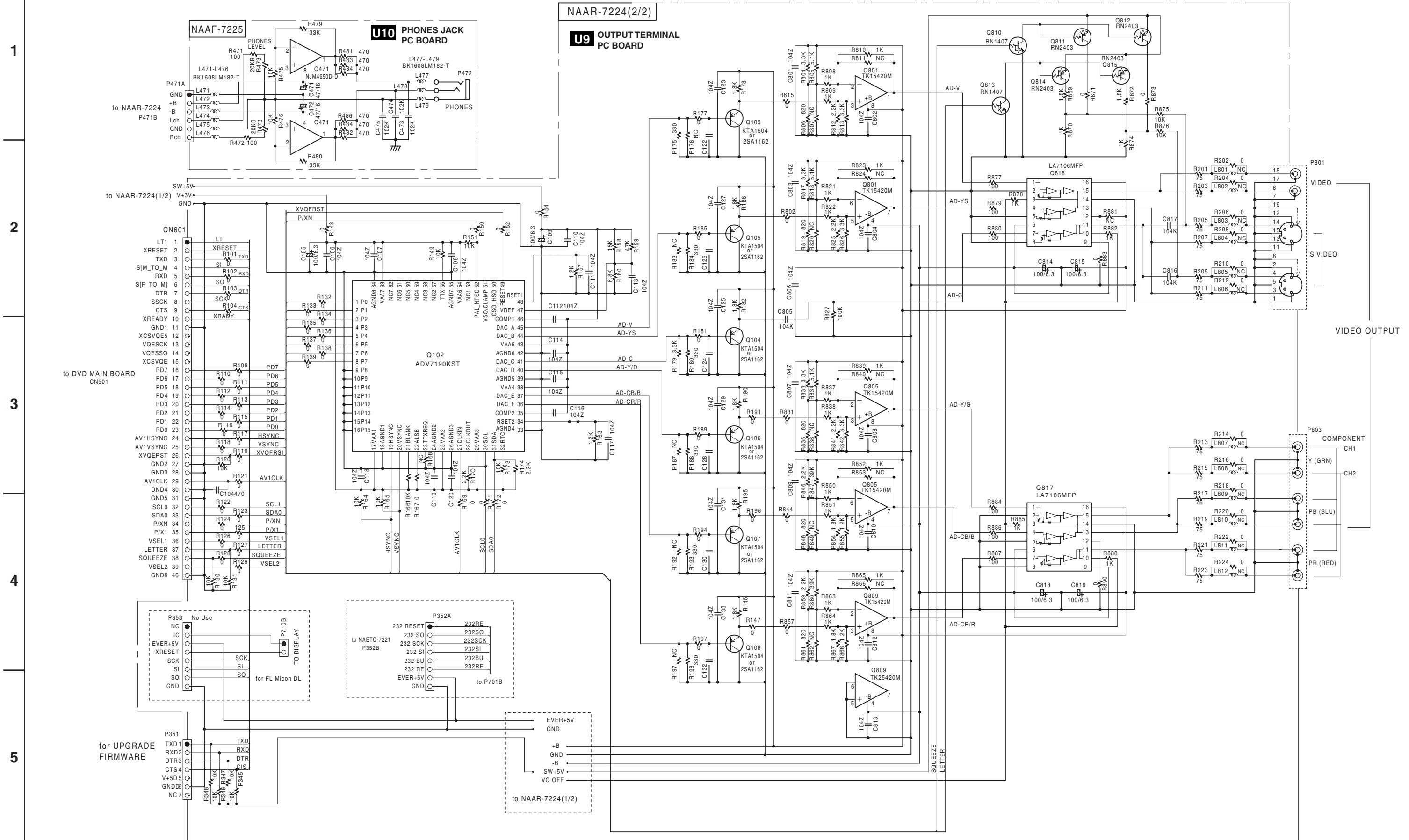
ATTENTION
AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.

RS-232C CONNECTOR

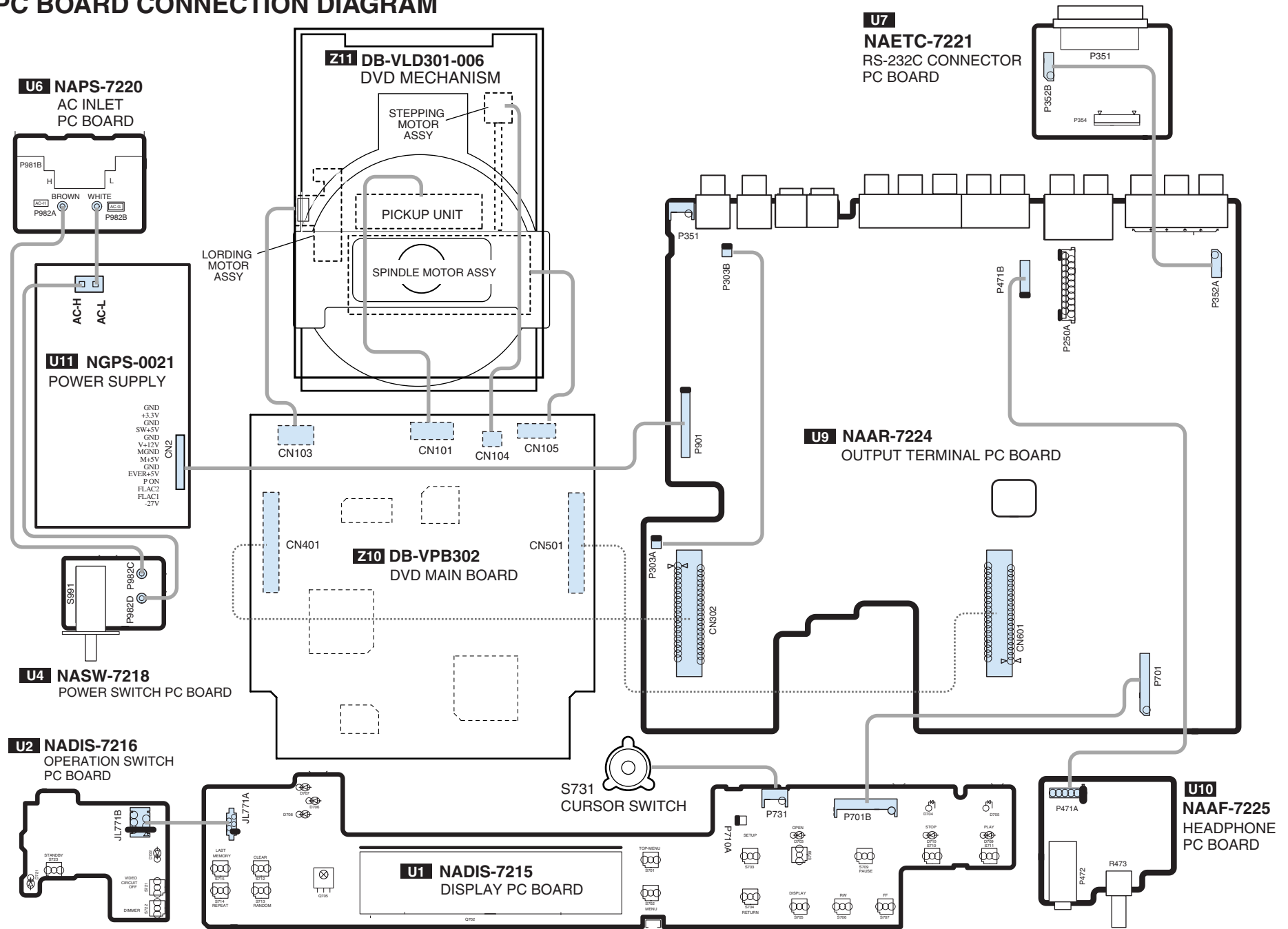
SCHEMATIC DIAGRAMS-2



A	
SCHEMATIC DIAGRAMS-3	



PC BOARD CONNECTION DIAGRAM



PRINTED CIRCUIT BOARD PARTS LIST-1

U1 DISPLAY PC BOARD(NADIS-7215-1-1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
	FL tube	
Q702	212219	14-BT-68GNK
	Remote sensor	
Q705	241336	PIC-37043TH2
	ICs	
Q701	22241734R3	MPD780232GC-047-8BT
Q712	22241713R2	BD4742G
	Transistors	
Q704	2216230R2 or 2214540R2	KRA103S or RN2403
Q706, Q711	2216340R2 or 2216260R2	KRC107S or RN1407
	Diodes	
D701	223234R2 or 223269R2	1SS352 or 1SS355
D702	224550560R2	UDZS5.6B
D703	225374	SEL2E10C, LED
D706-D708	225291D	SEL4910D-D, LED
D709, D710	225374	SEL2E10C, LED
	Ceramic resonator	
X701	3010242	CST5.00MGW
	Capacitors	
C701,C704	355721019	CE04W6.3V-100uF, Elect.
C703	355782209	CE04W50V-22uF, Elect.
	Push switches	
S701-S715	25035699	NPS-111-S662
	Sockets	
JL771A	25051089	NSCT-5P876, Wire holder
P701B	25052359 or 25051904 or 25052543	NSCT-22P2256 or NSCT-22P1691 or NSCT-22P2440
P731	25052344 or 25051889 or 25052528	NSCT-7P2241 or NSCT-7P1676 or NSCT-7P2425
	FL holder	
Q702B	27191141	holder

U2 CONTROL SWITC PC BOARD(NADIS-7216-1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q721,Q722	2216340R2 or 2216260R2	KRC107S or RN1407
	LEDs	
D721	225290	SEL4110R
D722	225291D	SEL4910D-D
	Push switches	
S721-S723	25035699	NPS-111-S662
	Plug	
JL771B	25055626	NPLG-5P588, Wire trap

U4 POWER SWITCH PC BOARD(NASW-7218-1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitor	
C991	3500196S	△ RE275V-103M, IS capacitor
	Push switch	
S991	25035703 or 25035550	△ NPS-111-L666P or △ NPS-111-L512P, Power
	Socket	
P982B	2009990661UL	△ NSAS-2P0921, Socket AS

U6 AC INLET PC BOARD(NAPS-7220-1G)

P981B	25055960	△ NPLG-2P913, AC inlet
-------	----------	------------------------

U7 RS-232C CONNECTOR PC BOARD (NAETC-7221-1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q351	22241624R2	MPD789071MC-011-5A4
Q352	22241537R2	MPD4721GS
	Coils	
L351-L355	230958R1	BK1608LM182-T, EMI filter
	Ceramic resonator	
X351	3010242	CST5.00MGW
	Capacitors	
C351-C354	354780109	CE04W50V-1uF, Elect.
C360,C363	354721019	CE04W6.3V-100uF, Elect.
	Sockets	
P351	25052379	NSCT-9P2277, D-sub connector
P352B	25052308 or 25052502	NSCT-8P2205 or NSCT-8P2399

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-2

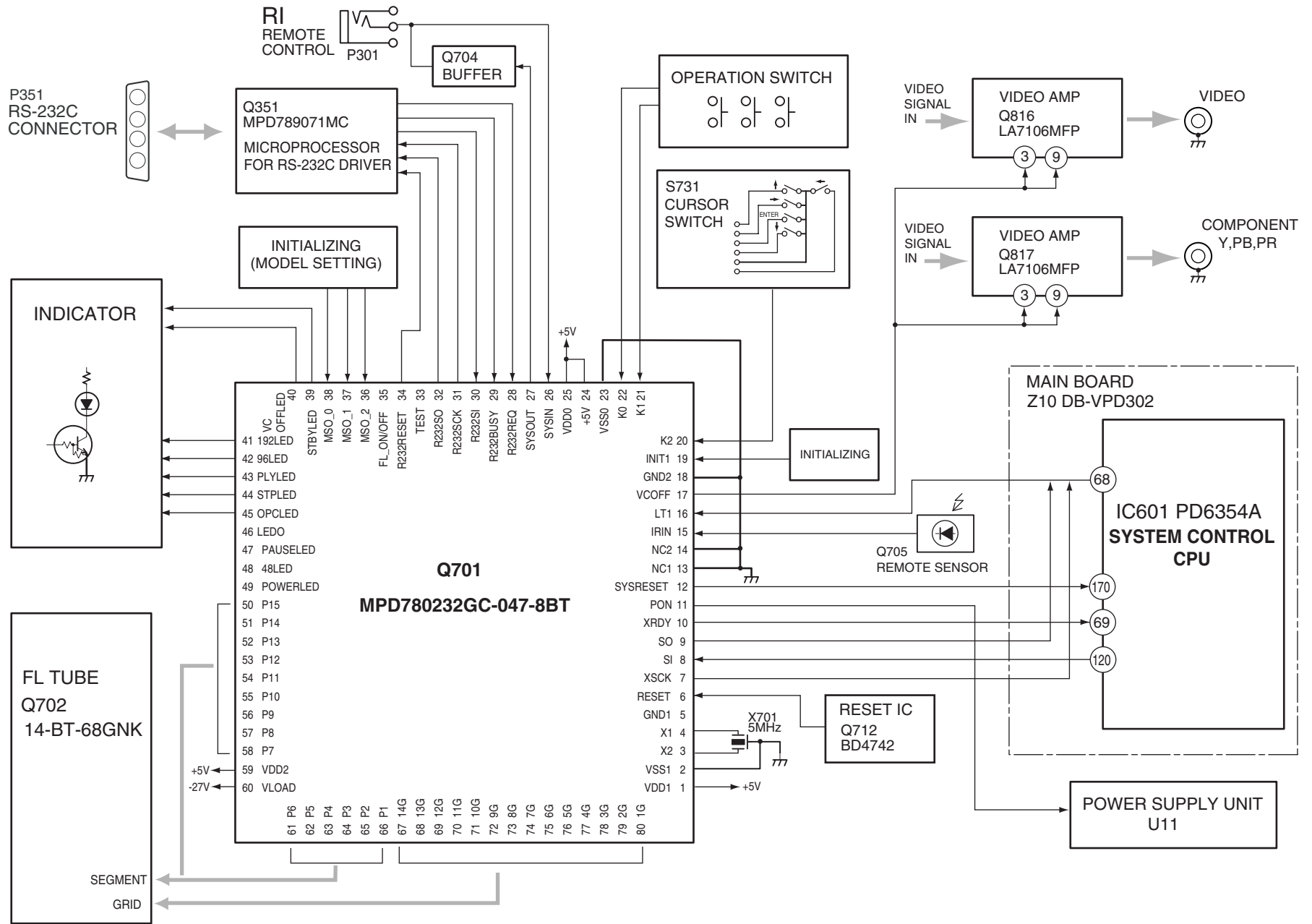
U9 OUTPUT TERMINAL PC BOARD(NAAR-7224-1D)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Photo couplers				
U301,U302	24120085	GP1FA551TZ, Digital output	Q609,Q610	2214373R2 or 2214374R2 or 2216185R2	2SA1162-O or 2SA1162-Y or KTA1504-GR
	ICs				
Q001	22241754R2	TC7WH74FU-TRB	Q611,Q612	2216141R2	HN1C03F-B
Q002,Q003	22241752R2	TC7SH32FU-TCB	Q810,Q813	2216340R2 or 2216260R2	KRC107S or RN1407
Q004	22241753R2	TC7SH86FU-TCB	Q811,Q812	2216230R2 or 2214540R2	KRA103S or RN2403
Q102	22241636R3	DB-VCP303(ADV7190KST)	Q814,Q815	2216230R2 or 2214540R2	KRA103S or RN2403
Q302	22274004HR2TO	TC74VHCU04FT	Q905	2212644	2SA1358-Y
Q303,Q304	22241638R2	TC7SHU04FU		Diodes	
Q401,Q501,Q601	22241635R2	CS4392-KS	D901	22380260 or 22380032 or 22380035	RL1N4003 or 1SR139-100 or GP104003E
Q403,Q404	22241383R2	NJM4565M-D	D902	22380293	EG01Z
Q503,Q504	22241383R2	NJM4565M-D		Coils	
Q603,Q604	22241383R2	NJM4565M-D	L302,L303,L304	230958R1	BK1608LM182-T, EMI filter
Q801,Q805,Q809	22241443R2	TK15420M	L477,L478,L479	230958R1	BK1608LM182-T, EMI filter
Q816,Q817	22241465R2	LA7106MFP	L901	231253K471	NCH-1510, Choke coil
Q901	22241515R2	PQ025EZ5MZP			
Q903	222780055	78M05HF			
Q904	22241637R2	NJM2374A			
	Transistors				
Q103,Q108	2216185R2 or 2214373R2 or 2214374R2	KTA1504-GR or 2SA1162-O or 2SA1162-Y			
Q405-Q408	2216260R2 or 2216340R2	RN1407 or KRC107S			
Q409,Q410	2214373R2 or 2214374R2 or 2216185R2	2SA1162-O or 2SA1162-Y or KTA1504-GR			
Q411,Q412	2216141R2	HN1C03F-B			
Q505-Q508	2216340R2 or 2216260R2	KRC107S or RN1407			
Q509,Q510	2214373R2 or 2214374R2 or 2216185R2	2SA1162-O or 2SA1162-Y or KTA1504-GR			
Q511,Q512	2216141R2	HN1C03F-B			
Q605-Q608	2216340R2 or 2216260R2	KRC107S or RN1407			

PRINTED CIRCUIT BOARD PARTS LIST-3

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors			Jacks		
C105,C109	354721019	CE04W6.3V-100uF, Elect.	P301	25045589	NPJ-2PDB400, RI
C306,C309,C410	354721019	CE04W6.3V-100uF, Elect.	P302	25045592	NPJ-1PDOR403, Coaxial
C412,C512,C612	354722219	CE04W6.3V-220uF, Elect.	P401	25045671	NPJ-4PDRW469
C414,C416	354780109	CE04W50V-1uF, Elect.	P402	25045608	NPJ-6PDBRW415
C427,C428	354721019	CE04W6.3V-100uF, Elect.	P801	25045660	NPJ-10PDBY459, S video
C429,C430	374721014	ECQ-B50V-101J, Plastic	P803	25045670	NPJ-6PDGLR468, Component video
C431,C432	374722224	ECQ-B50V-222J, Plastic	Sockets		
C435,C436	354721019	CE04W6.3V-100uF, Elect.	CN302,CN601	25052612	NSCT-40P2509
C437,C438	354782209	CE04W50V-22uF, Elect.	P303A	200BB190415UL	NSAS-4P0816, Socket AS
C510,C527,C528	354721019	CE04W6.3V-100uF, Elect.	P351	25052344	NSCT-7P2241
C514,C516	354780109	CE04W50V-1uF, Elect.	P352A	25052308 or	NSCT-8P2205 or
C529,C530	374722224	ECQ-B50V-222J, Plastic		25052502	NSCT-8P2399
C531,C532	374724724	ECQ-B50V-472J, Plastic	P701	25052322	NSCT-22P2219
C535,C536	354721019	CE04W6.3V-100uF, Elect.	P901	2002A392815	NSAS-28P0742, Socket AS
C537,C538	354782209	CE04W50V-22uF, Elect.	Radiator		
C610,C627,C628	354721019	CE04W6.3V-100uF, Elect.	Q903a	27160145	RAD-51
C614,C616	354780109	CE04W50V-1uF, Elect.	Screw		
C629,C630	374722224	ECQ-B50V-222J, Plastic	Q903b	838430107	3TTB+10S(BC)
C631,C632	374724724	ECQ-B50V-472J, Plastic	U10 PHONES JACK PC BOARD(NAETC-7225-1D)		
C635,C636	354721019	CE04W6.3V-100uF, Elect.	IC		
C637,C638	354782209	CE04W50V-22uF, Elect.	Q471	22240581R2 or	NJM4565M or
C814,C815	354721019	CE04W6.3V-100uF, Elect.		22241383R2	NJM4565M-D
C818,C819,C915	354721019	CE04W6.3V-100uF, Elect.	Coils		
C905,C907	354741019	CE04W16V-100uF, Elect.	L471-L476	230958R1	BK1608LM182-T, EMI filter
C908,C910,C923	354742219	CE04W16V-220uF, Elect.	Capacitorts		
C912	354741029S	CE04W16V-1000uF, Elect.	C471,C472	354744709	CE04W16V-47uF, Elect.
C913	354744719	CE04W16V-470uF, Elect.	Resistor		
C917,C919,C921	354722219	CE04W6.3V-220uF, Elect.	R473	5112463	N09RGL20KB20M, Phones level
Resistors			Jack		
R903	453534794	RNU1/2WCJ-R47	P472	25045255	YKB26-5009, Phones
R910	453530824	RNU1/2WCJ-8R2	Socket		
			P471A	2009990698UL	NSAS-12P0973, Socket AS

MICROPROCESSOR CONNECTION DIAGRAM



MICROPROCESSOR TERMINAL DESCRIPTION

Q701: MPD78022GC-047-8BT

PIN NO.	FUNCTION	I/O	DESCRIPTION	PIN NO.	FUNCTION	I/O	DESCRIPTION
1	Vdd1	—	Power supply, +5V	41	SMP192LED	O	Output pin of sampling rate 192 LED. control.
2	Vss1	—	Ground pin	42	SMP96LED	O	Output pin of sampling rate 96 LED control.
3	X2	—	Main clock input pin (5MHz)	43	PLYLED	O	Output pin of Play LED control.
4	X1	—	Main clock input pin (5MHz)	44	STPLED	O	Output pin of Stop LED control.
5	GND	—	Ground pin	45	OPCLLED	O	Output pin of Open/ close LED control.
6	RESET	—	Reset pin of microprocessor	46	—	—	Not used
7	$\overline{\text{XSCK}}$	O	Output pin of the clock for the communication with the system microcomputer, and the writing the data to flash ROM	47	—	—	Not used
8	SI	I	Input pin of the data for the communication with the system microcomputer, and the writing the data to flash ROM	48	—	—	Not used
9	SO	O	Output pin of the data for the communication with the system microcomputer, and the writing the data to flash ROM	49	—	—	Not used
10	$\overline{\text{XRDY}}$	O	Output pin of the XRDY signal for the communication with the system microcomputer.	50	P15	O	Output pin for FL segment (P15) control.
11	PON	O	Output pin of Power ON control signal for system microcomputer.	51	P14	O	Output pin for FL segment (P14) control.
12	$\overline{\text{SYSRESET}}$	O	Output pin of reset signal for system microcomputer.	52	P13	O	Output pin for FL segment (P13) control.
13	—	I	Not used	53	P12	O	Output pin for FL segment (P12) control.
14	—	I	Not used	54	P11	O	Output pin for FL segment (P11) control.
15	$\overline{\text{IRIN}}$	I	Input pin of remote control signal from remote sensor.	55	P10	O	Output pin for FL segment (P10) control.
16	LT1	I	Input pin of LT data for communication with the system microcomputer.	56	P9	O	Output pin for FL segment (P9) control.
17	VCOFF	O	Output pin of video circuit control signal.	57	P8	O	Output pin for FL segment (P8) control.
18	GND	—	Ground pin for D/A converter.	58	P7	O	Output pin for FL segment (P7) control.
19	INIT1	I	Input pin for initializing set. (Analog signal)	59	Vdd2	—	Power supply pin (+5V)
20	K2	I	Input pin for the key operation of the unit.	60	Vload	—	FIP control pin to connect pull down resistor
21	K1	I	Input pin for the key operation of the unit.	61	P6	O	Output pin for FL segment (P6) control.
22	K0	I	Input pin for the key operation of the unit.	62	P5	O	Output pin for FL segment (P5) control.
23	Vss0	—	Ground pin	63	P4	O	Output pin for FL segment (P4) control.
24	+5V	—	Power supply pin of D/A converter, +5V	64	P3	O	Output pin for FL segment (P3) control.
25	Vdd0	—	Power supply, +5V	65	P2	O	Output pin for FL segment (P2) control.
26	$\overline{\text{SYSIN}}$	I	Input pin of system control signal (RI).	66	P1	O	Output pin for FL segment (P1) control.
27	$\overline{\text{SYSOUT}}$	O	Output pin of system control signal (RI).	67	14G	O	Output pin for FL grid (G14) control.
28	R232REQ	I	Input pin of REQ signal from microprocessor for RS-232C driver.	68	13G	O	Output pin for FL grid (G13) control.
29	R232BUSY	I	Input pin of BUSY signal from microprocessor for RS-232C driver	69	12G	O	Output pin for FL grid (G12) control.
30	R232SI	I	Input pin of SI signal from microprocessor for RS-232C driver	70	11G	O	Output pin for FL grid (G11) control.
31	R232SCK	O	Input pin of SCK signal from microprocessor for RS-232C driver	71	10G	O	Output pin for FL grid (G10) control.
32	R232SO	O	Input pin of SO signal from microprocessor for RS-232C driver	72	9G	O	Output pin for FL grid (G9) control.
33	TEST	I	Input pin for test mode.	73	8G	O	Output pin for FL grid (G8) control.
34	R232RESET	O	Output pin of reset signal to microprocessor of RS-232C driver	74	7G	O	Output pin for FL grid (G7) control.
35	FLON_OFF	O	Output pin of FL filament on/off control.	75	6G	O	Output pin for FL grid (G6) control.
36	MS0_2	I	Input pin-2 for initializing. (for model select)	76	5G	O	Output pin for FL grid (G5) control.
37	MS0_1	I	Input pin-1 for initializing set. (for model select)	77	4G	O	Output pin for FL grid (G4) control.
38	MS0_0	I	Input pin-0 for initializing set. (for model select)	78	3G	O	Output pin for FL grid (G3) control.
39	STBYLED	O	Output pin of standby LED control .	79	2G	O	Output pin for FL grid (G2) control.
40	VCOFFLED	O	Output pin of video circuit off LED control.	80	1G	O	Output pin for FL grid (G1) control.

DISASSEMBLING PROCEDURES-1

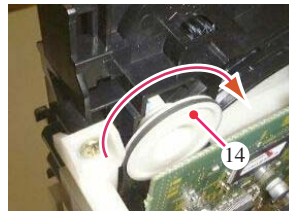
1. Optical pick-up are parts which are easy to receive damage with static electricity.
Therefore, in case reassembly mechanism, take the measures against static electricity.
2. The number of () in the explanatory note and ○ in the figure shows Ref. No. of the exploded view.

How to remove the DVD mechanism from chassis

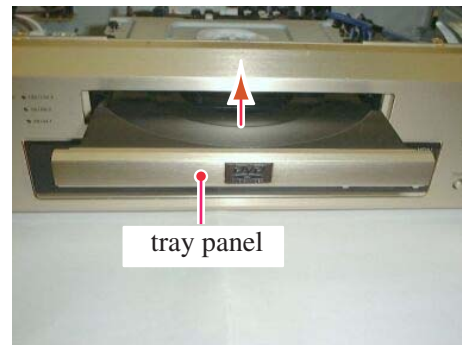
- 1 Remove the top cover
- 2 Begin to pull the tray by rotating the gear pulley (14) clockwise.



bottom view



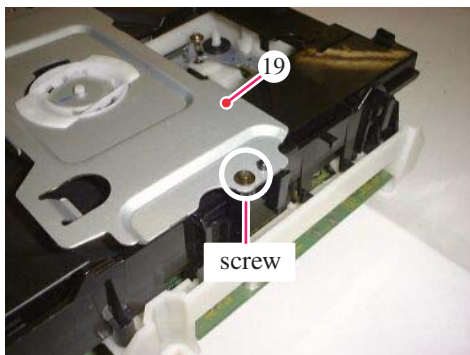
- 3 Remove the tray panel.



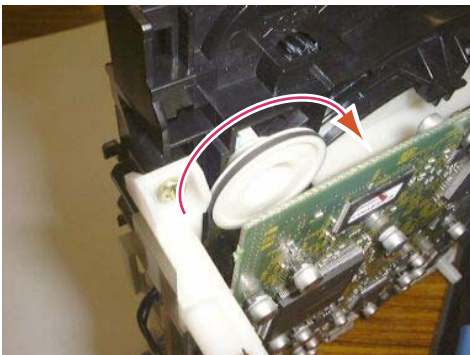
- 4 Remove the four screws which is fixing the dvd mechanism to the chassis, and remove the mechanism from chassis.

How to disassembling the DVD mechanism

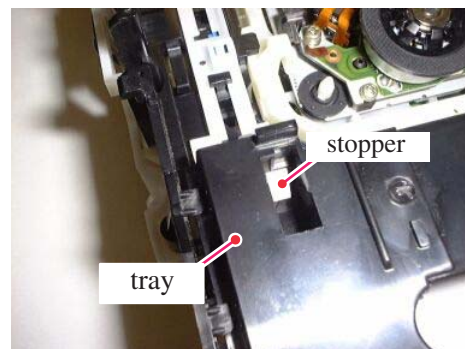
- 1 Remove the screw and remove the bridge (19).



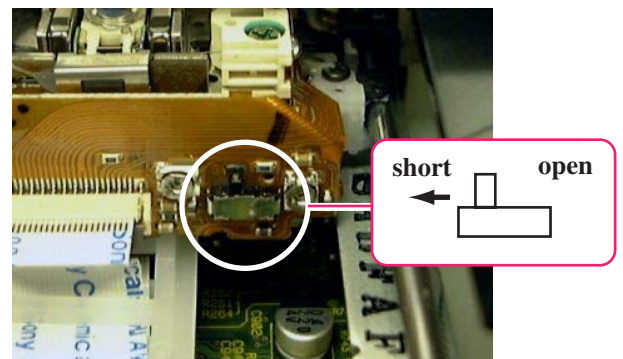
- 2 Begin to pull the tray by rotating the gear pulley (14) clockwise.



- 3 Remove the tray by pressing down the stopper SW lever (17).



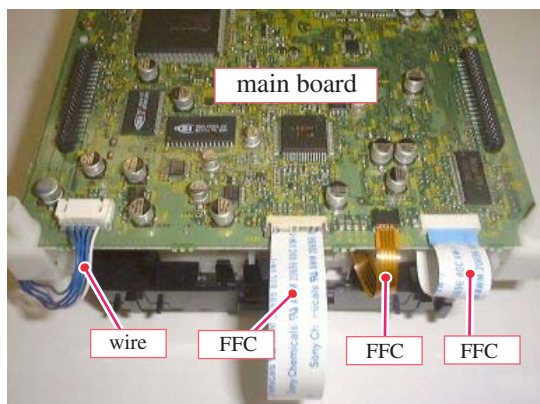
- 4 Set the pick short switch to short side.
[NOTE]
Do not disconnect the FFC and wire before doing this work.



DISASSEMBLING PROCEDURES-2

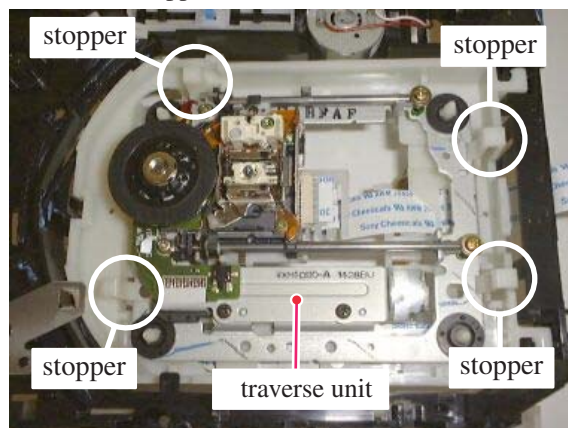
How to disassembling the DVD mechanism

- 5** Disconnect the three FFCs and the wire from the main board.



- 6** Remove the two screws which is fixing the main board to the mechanism, and remove the main board.

- 7** Remove the traverse unit by pressing down the four stoppers.



How to reassembling the DVD mechanism

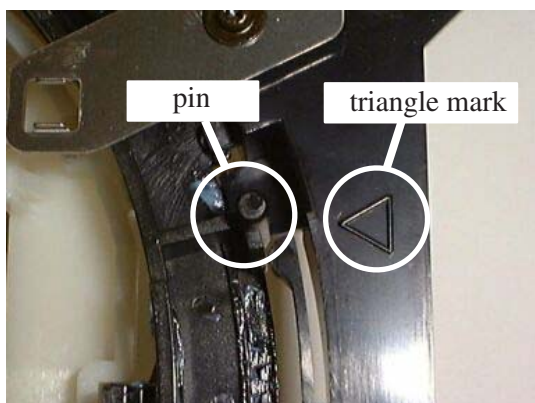
1. To reassemble each mechanism, reverse the applicable "disassemble procedures".

7 → **6** → ... → **1**

Notes in each process

1. Attachment of tray.

Insert it after matching the triangle mark of the loading base and the position of pin on the drive cam

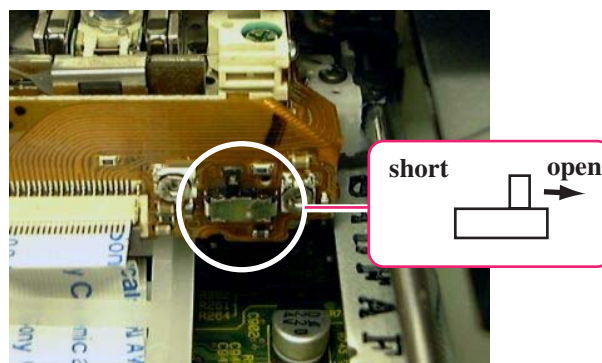


2. Set the pickup short switch.

Set the pick short switch to open side.

[NOTE]

Do not set the switch to open side before doing connect the FFC and wire to main board.



Replacement of DVD main board

After replacement of the DVD main board (DB-VPB302) should do the following work.

3. Set the ID number

The necessity of inputting ID data into the unit.

Refer to "Setting the ID number and ID data" of "UPGRADE FIRMWARE" about the method of input ID data.

2. Set the region code

It is unnecessary.

Unit is power on, the region code will be set up automatically.

1. Setup of the firmware

Firmware already exists in the main board.

Be sure to check the version of the firmware.

Refer to "UPGRADE FIRMWARE"

DISASSEMBLING PROCEDURES-3

Replacement of DVD mechanism

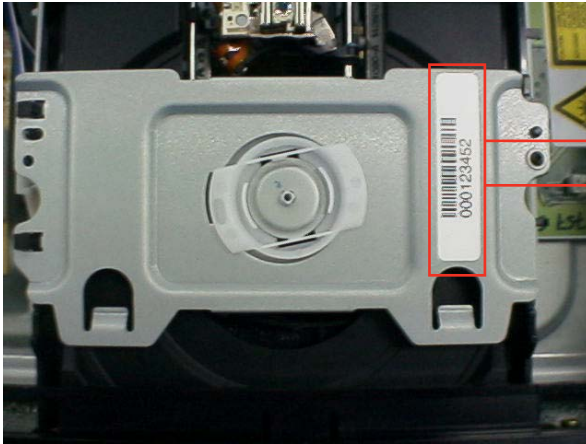
The display label of the ID number is stuck on the upper part of the DVD mechanism.

ID number needs to be displayed absolutely.

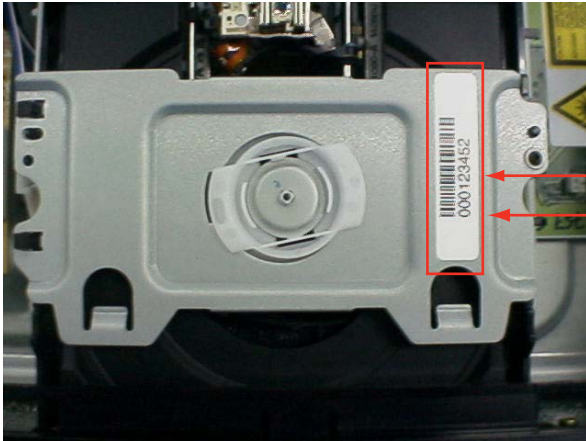
In case replacement DVD mechanism, do the following work absolutely.

1. Stick on the mechanism after replacement the ID label stuck on the DVD mechanism before exchange.
2. When the work which you restick cannot be performed easily, you may post and stick the ID number on the blank level (Part No.29362727).

Before replace



After replace



Copy the ID number
In this case, the bar code
is unnecessary.

XXXXXXXXXX

Restick

Stick

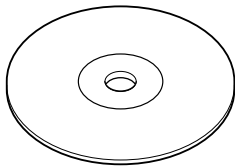
UPGRADE FIRMWARE-1

Prepares for upgrade firmware

ID DATA DISC (DB-VPB302)

Part No. 0R117

It is used for the input of ID data.

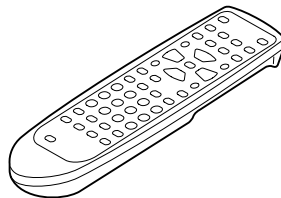


REMOTE CONTROLLER for UPGRADE

Part No. 24140451S

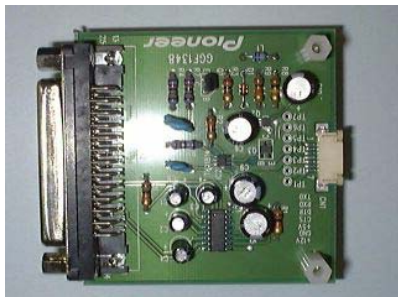
It is remote control of the exclusive use for inputting ID data.

Can not the input of ID data by remote controller attached to the unit.



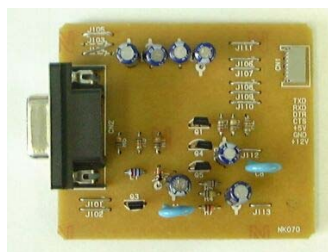
INTERFACE JIG

Part No. GGF1348

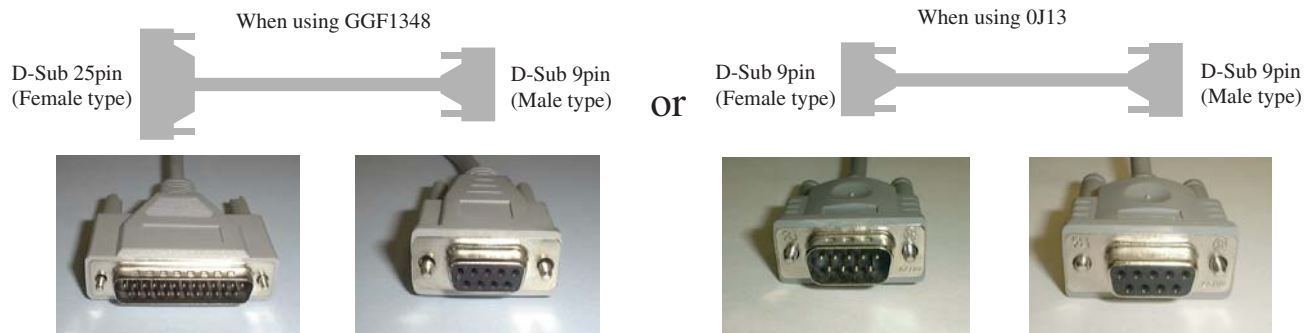


Part No. 0J13

OR

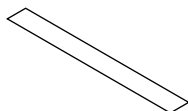


RS-232C Cable (Straight type Cable)



Flexible flat cable

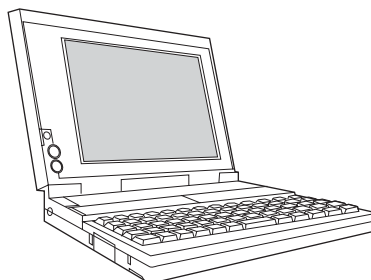
Part No.:GGD1231 or 0F001



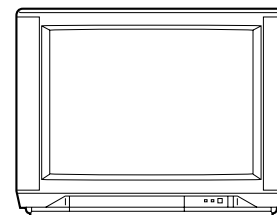
Video cable



PC (Personal computer)

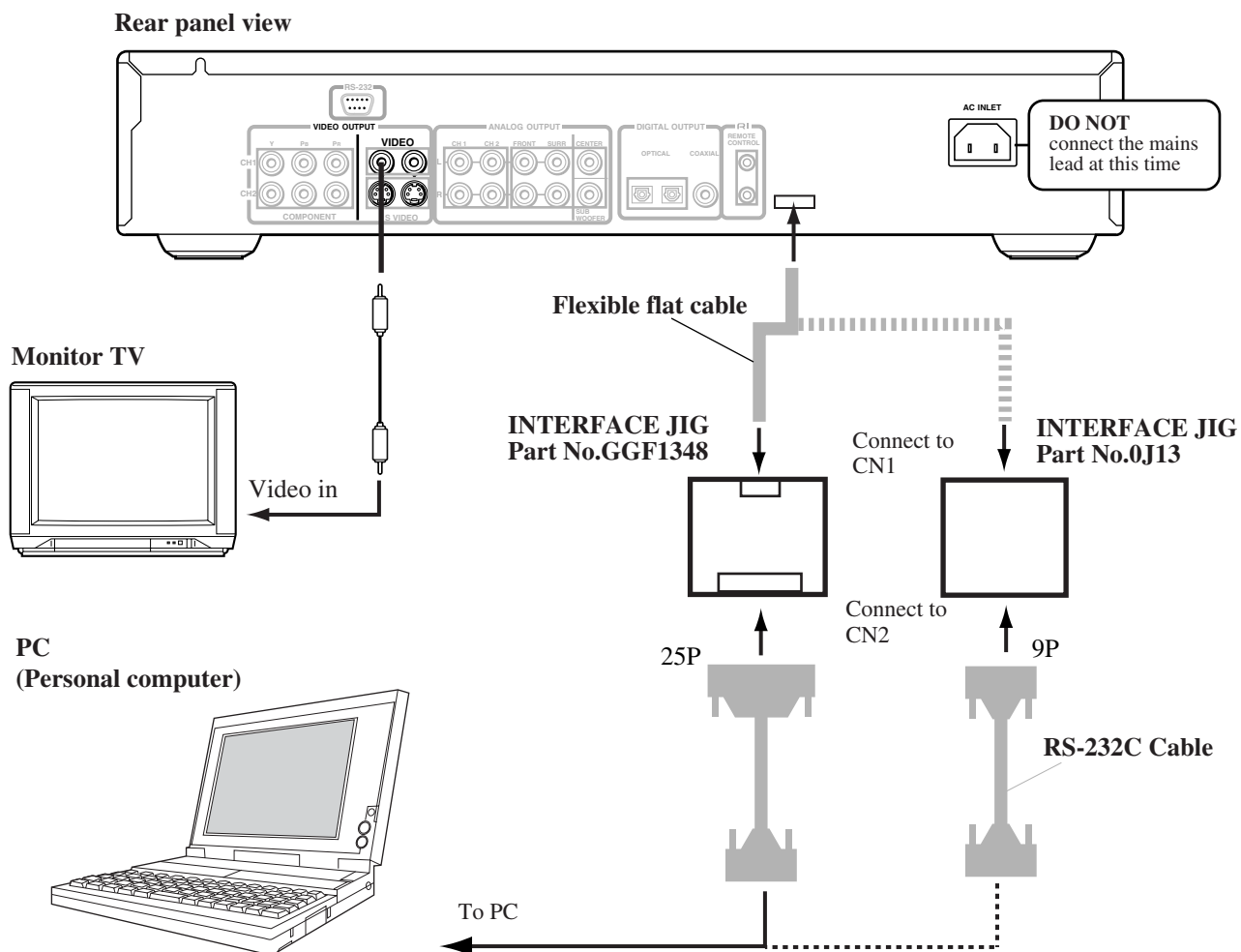


Monitor TV



UPGRADE FIRMWARE-2

Connections



Prepare the file required for rewriting of the firmware.

Build the folder to C drive of the hard disk of PC, and put in the file required for the folder.

The required file

NOTE: This is one example.

1. ok_down.exe

Rewriting tools

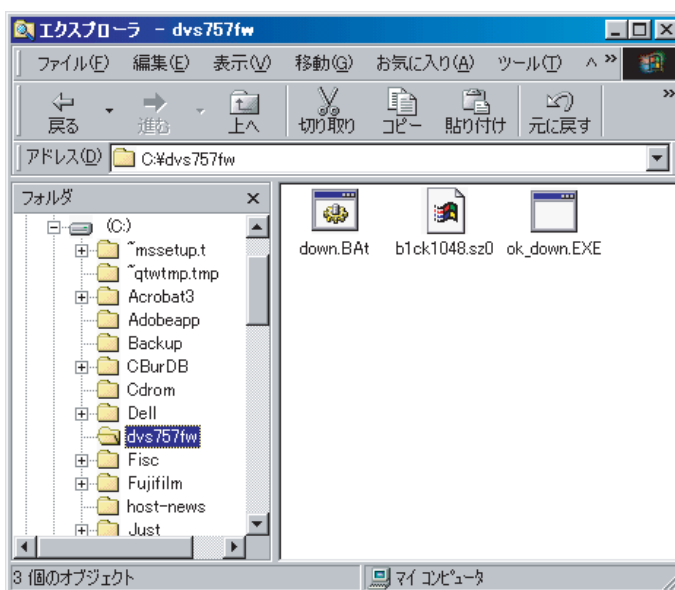
2. down.bat

Rewriting tools

3. b1ck1048.sz0

Firmware program

The file name changes with versions of the firmware.

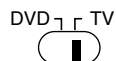


UPGRADE FIRMWARE-3

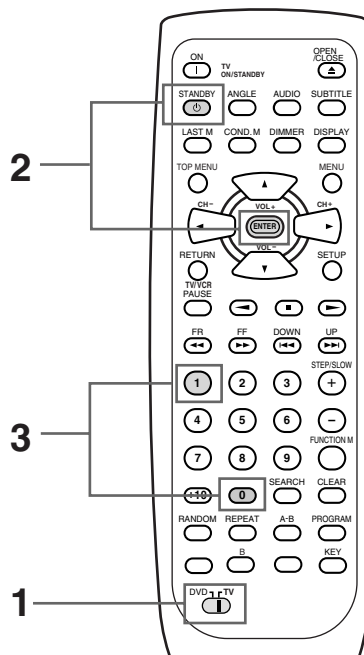
Pre programming the remote controller

Before using remote control for upgrade firmware, it is necessary to carry out the following operation.

1. Set the DVD/TV switch to TV

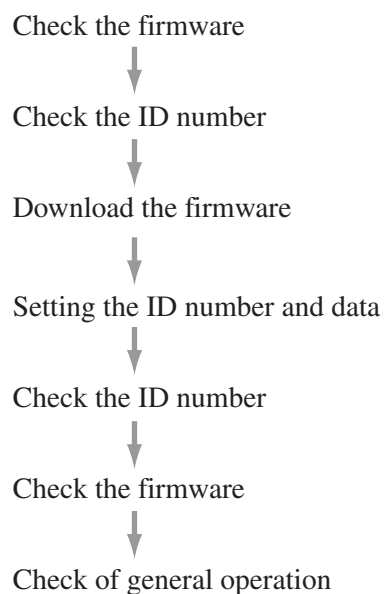


2. While holding down the **STANDBY** button on the Remote controller that you want to program, press the **ENTER** button, and then release both button.
3. 1 key is pushed, it continues within 20 seconds, and 0 key is pushed after that.
4. The complete of the setting of remote control.

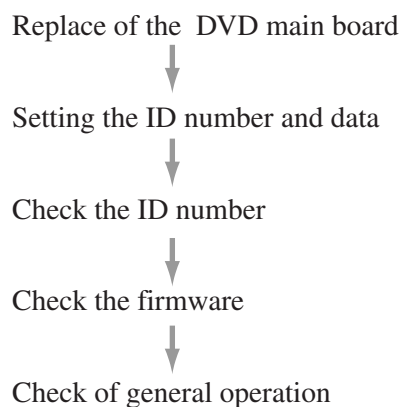


The order of work

In the case of upgrade firmware



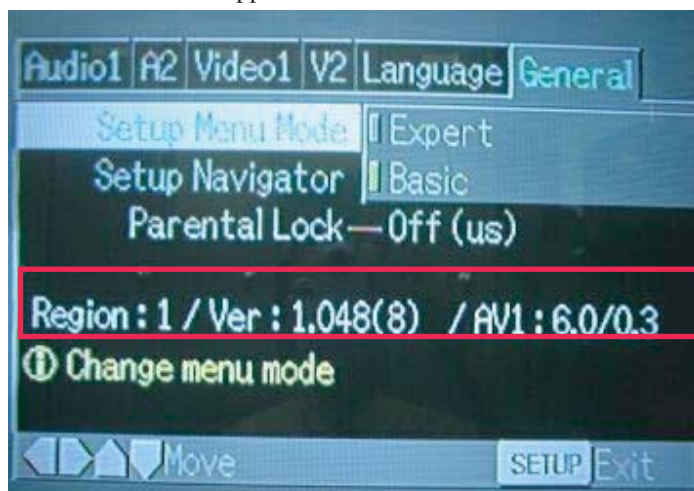
In the case of replace of the DVD main board



UPGRADE FIRMWARE-4

Check the firmware

1. Press the **SETUP** key
2. Operate the **CURSOR** switch to make up the **Setup menu mode** are selected on monitor TV.
3. Press the **DISPLAY** button
The region and FW version information will appear on the monitor TV.



About ID number and ID data input

It is necessary to set up an individual number (ID number and ID data) for every player in the DVD audio correspondence player.

The guarantee of operation becomes impossible if this ID number and ID data are not set up correctly.

It is the following case that the input of ID number is required.

1. After download of the data to the flash ROM of the unit.
2. When displayed on FL display as "No ID Number" after turning ON the power supply of the unit.
3. When displayed on FL display as "No ID DATA".

Check ID number

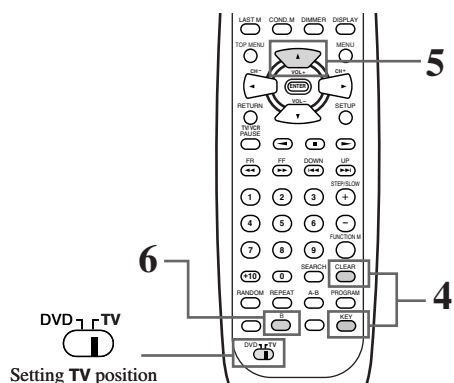
The input of ID number is needed by the work of rewriting of the farmware.

Make the note by checking ID number of the set with the following procedure first.

ID number is displayed also on the DVD mechanism upper part.

See the display, when you cannot check ID number by the following method.

1. Check the connecting the unit to PC and monitor TV.
2. **Switch ON** the power of unit.
3. Check that the disk is not contained in the unit.
4. Press and hold down **CLEAR** button, then press the **KEY** button of remote controller.
5. Press the **VOL+** button.



TV Monitor

[Player's ID Number Setting]
ID Number
[000000001]
compare
> *****
<CLEAR> Exit
Input ID Number !

FL Display

000000001

Set-up ID number is displayed.
It is displayed also on FL display.
This ID number is recorded in the memo.

6. Press the **B** button, and check mode is ended.

UPGRADE FIRMWARE-5

Download procedures

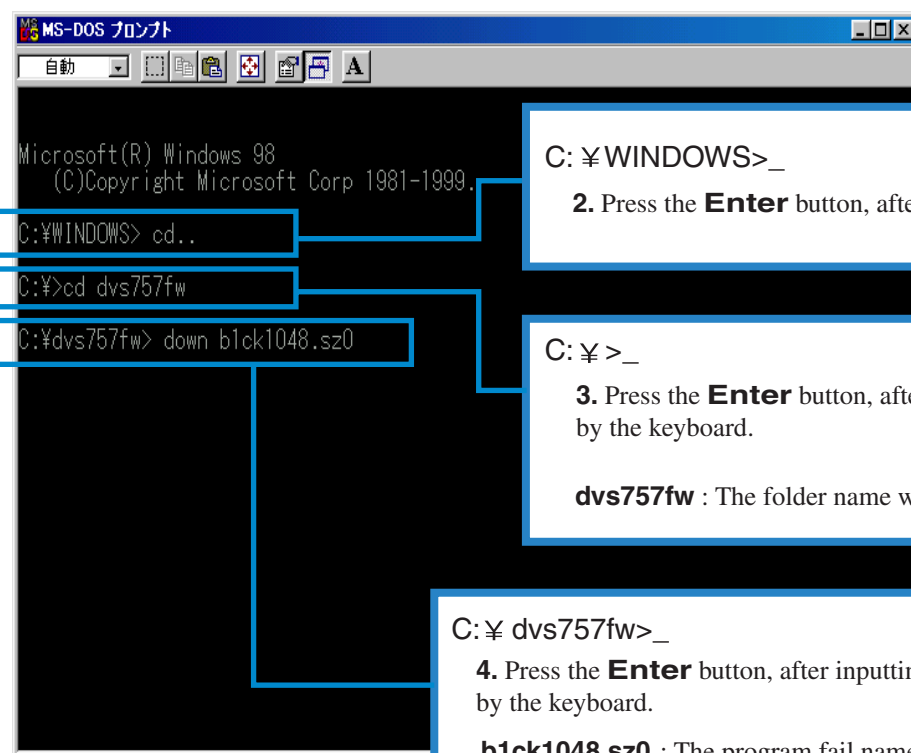
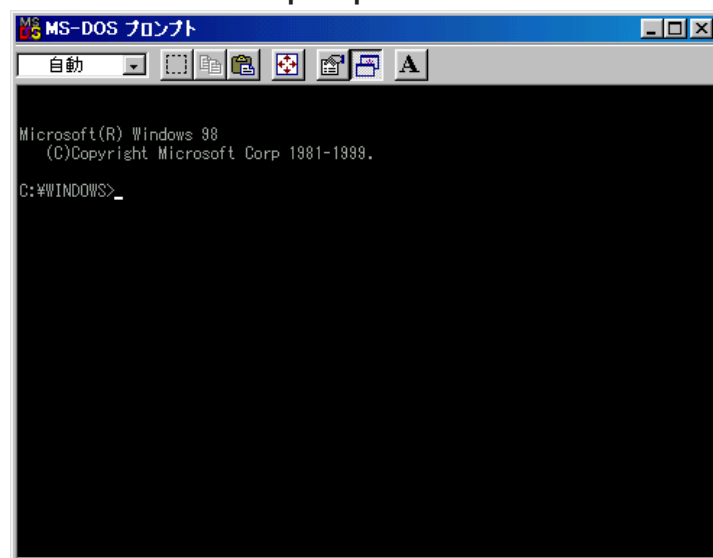
[NOTES]

This procedure document supposing using Japanese PC.

The program file name, the folder name, etc. are examples.

1. Start MS-DOS prompt using the start-up menu of PC.

Windows of MS DOS prompt



C: ¥WINDOWS>_

2. Press the **Enter** button, after inputting **cd..** by the keyboard.

C: ¥>_

3. Press the **Enter** button, after inputting **cd** **dvs757fw** by the keyboard.

Space

dvs757fw : The folder name which saves the program file

C: ¥ dvs757fw>_

4. Press the **Enter** button, after inputting **down** **b1ck1048.sz0** by the keyboard.

Space

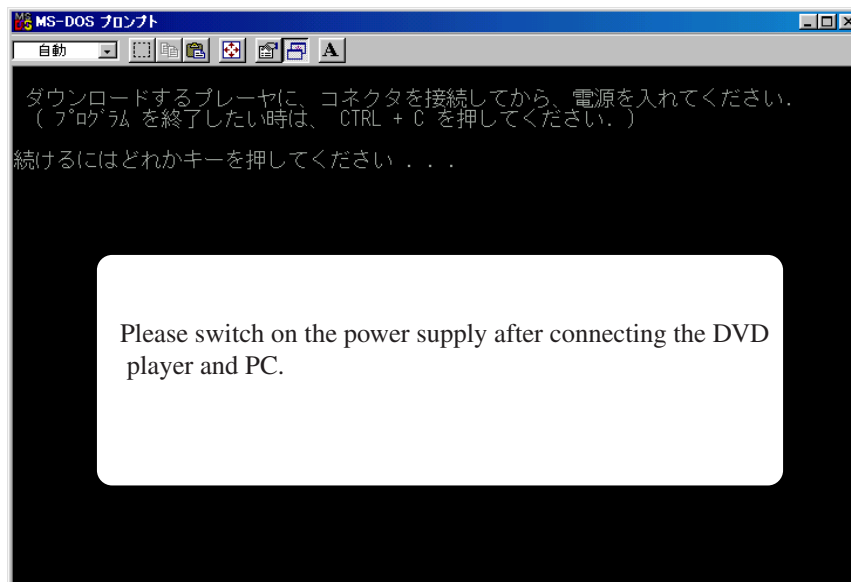
Zero

b1ck1048.sz0 : The program fail name

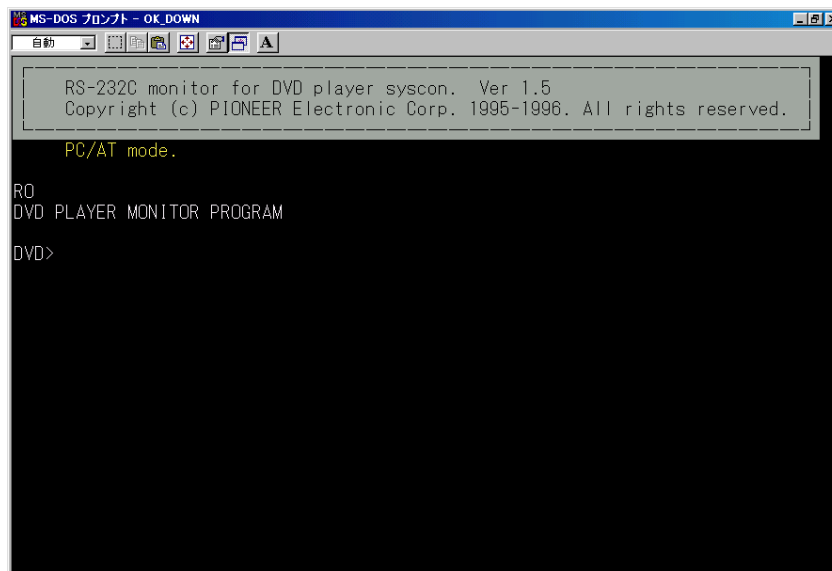
The file name changes with versions of FW.

UPGRADE FIRMWARE-6

Download procedures



4. Check that the PC and TV monitor are correctly connected with unit.
5. Check that the disk is not contained in the disc.
6. Turn ON the power supply switch of the unit.
7. Press the **Enter** key of PC.
8. Press the **Enter** button, after inputting **MO** by the keyboard of PC.



UPGRADE FIRMWARE-7

Download procedures

9. Press the **Enter** button, after inputting **SZL** by the keyboard of PC.

```

MS-DOS フロント - OK_DOWN
自動
RS-232C monitor for DVD player syscon. Ver 1.5
Copyright (c) PIONEER Electronic Corp. 1995-1996. All rights reserved.

PC/AT mode.

RO
DVD PLAYER MONITOR PROGRAM

DVD>SZL
コマンドライン指定のファイル b1ck1048.sz0 を使用します。
回線の確認を行っています。
ボーレート = 57600 [bps] を使用します。

Update start
Flash OK
Chip erase start ... Complete
Load start
送信を開始します。
0 10 20 30 40 50 60 70 80 90 100 [%]
+-----+-----+-----+-----+-----+-----+-----+-----+ 1454738 [Byte]
000
  
```

FL Display

ROM ERASE



LOADING

Waiting for from 5 to 10 minutes.

The state which download completed

```

MS-DOS フロント - OK_DOWN
自動
Copyright (c) PIONEER Electronic Corp. 1995-1996. All rights reserved.

PC/AT mode.

RO
DVD PLAYER MONITOR PROGRAM

DVD>SZL
コマンドライン指定のファイル b1ck1048.sz0 を使用します。
回線の確認を行っています。
ボーレート = 57600 [bps] を使用します。

Update start
Flash OK
Chip erase start ... Complete
Load start
送信を開始します。
0 10 20 30 40 50 60 70 80 90 100 [%]
+-----+-----+-----+-----+-----+-----+-----+-----+ 1454738 [Byte]
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
Complete
ダウンロードは、無事終了しました。
ターゲットは、自分で再起動します。
  
```

FL Display

NO ID NUM!

The work of download was completed satisfactory.

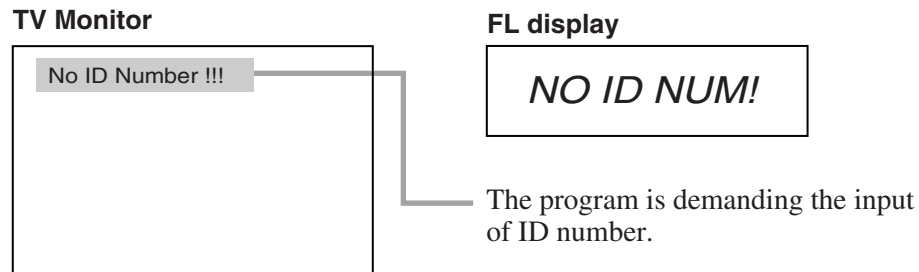
UPGRADE FIRMWARE-8

Setting the regional code

Not need to set up region code at DPS-7.2.

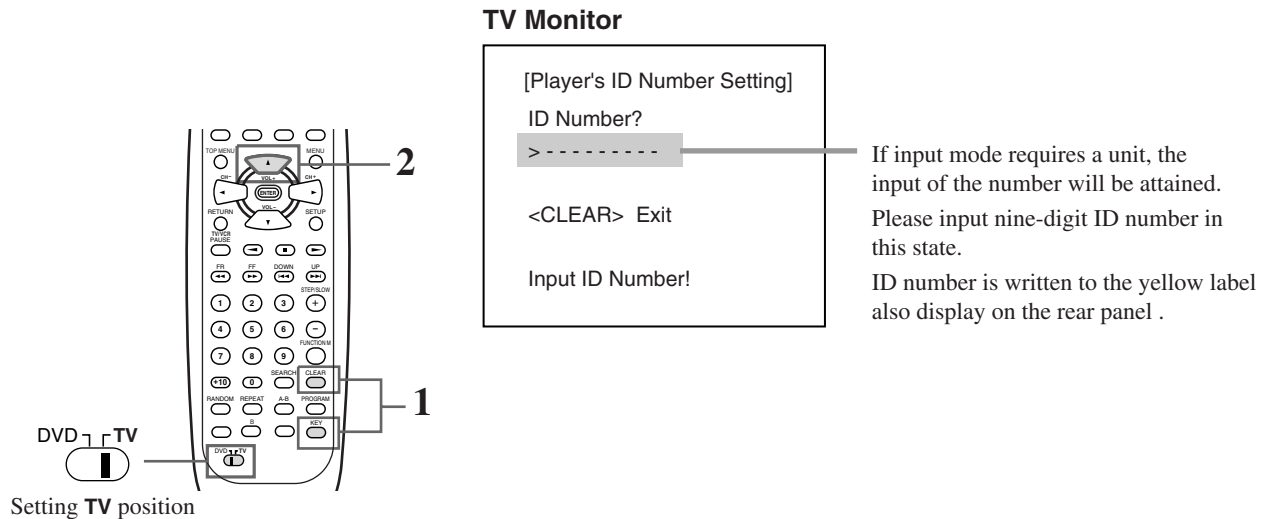
Because the region code is set up automatically.

Setting the ID number and ID data



Into the input mode of ID number.

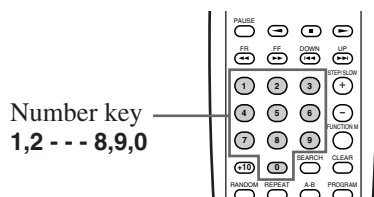
1. Press and hold down the **CLEAR** button, then press the **KEY** button
2. Press the **VOL+** button.



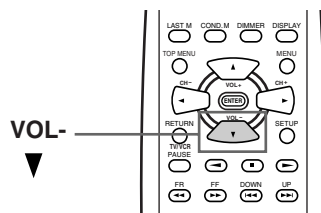
UPGRADE FIRMWARE-9

Setting the ID number.

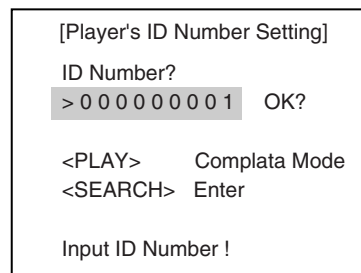
1. Input the ID number recorded before using the number button. (Refer to "**Check ID number**")



2. Press the **VOL -** button.



TV Monitor



FL display

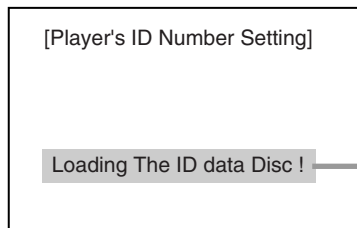
IN ID DATA

If ID number is set up, it will be in ID data input state from CDR.

ID data setting

1. Press the **open/close** button of set and the tray is pulled out.
2. Load the ID data disc.
3. Press the **open/close** button and tray is closed.

TV Monitor

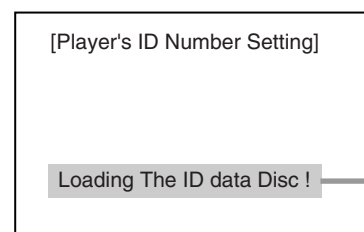
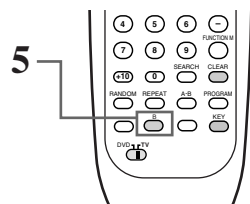


FL display

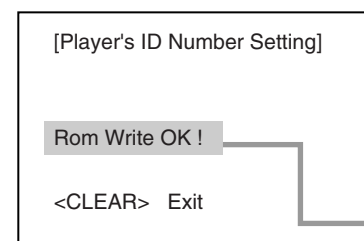
RD ID DATA

It becomes such a display during reading of data from CDR.

The read-in work of ID data from CDR starts automatically.



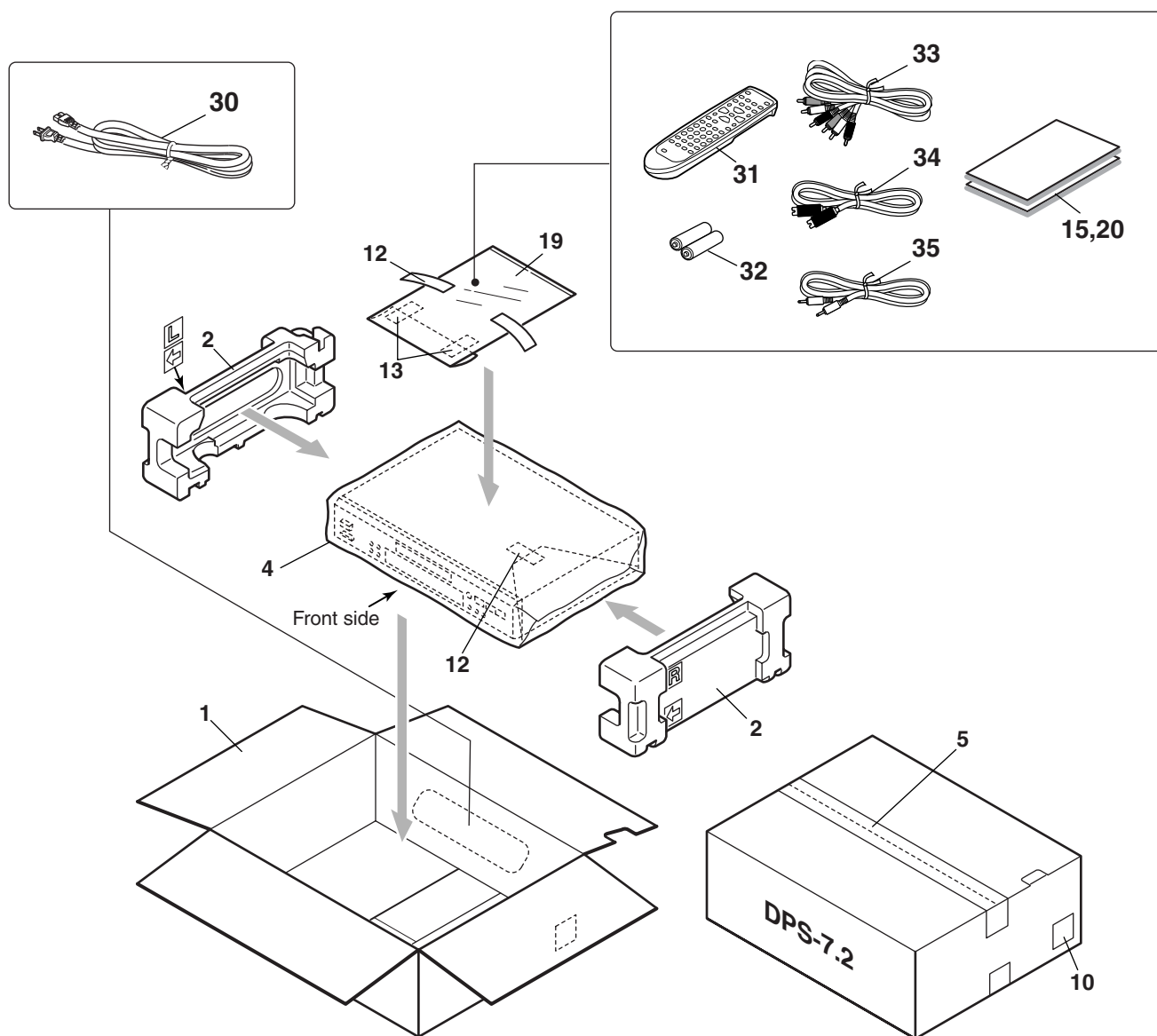
If reading completes ID data from CDR, next, the writing of ID data to the flash ROM of a set will start.



If the writing of ID data to a flash ROM is completed, it will be displayed as " Rom Write OK! "

4. Check being displayed as "*Rom Write OK*"
5. Press the **B** button of remote controller and setting mode is ended.
6. Put out the disc.
7. Check the ID number.
8. Check the Firmware.

PACKING PROCEDURES



PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	29053801A	Carton box B MDD1N	20	29343135	Instruction manual, E
2	29091986	Pad AS	30	253297KAW	AS-UC-2, Power supply cord
4	29100037-1A	Poly bag (650 x 500)	31	24140451	RC-451DV, Remote controller
5	29110071 or	Tape, SOP-400(CLEAR50MT) or	32	3010054	Battery, UM-3
	29110098	Tape, W50 3M NO 371	33	2010379	RCA3P(YWR), Pin cord AS
10	29362933	UPC label AS	34	2010380	S Video cord
12	29110149	Tape NO.29	35	2010200	3.5-Mini plug (RI)
13	29110161	Tape			
15	29365089	Warranty card (INTEGRA)			

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

Integra Division of

ONKYO CORPORATION

Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN

Tel: 072-831-8111 Fax: 072-833-5222 <http://www.onkyo.co.jp/>

Integra Division of

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: integra@onkyousa.com <http://www.integrahometheater.com>