

# Integra® SERVICE MANUAL

## DVD AUDIO/VIDEO Player


### DPS-9.1



Black model

UDD	120V AC, 60Hz
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#### 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.

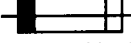
MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

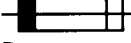
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# SERVICE PROCEDURE

## 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 demier est indique la qu le present symbol est appose.

REF.NO.	PART NO.	DESCRIPTION
F9001	252158	1.6A-UL/T-237, Fuse


## 2. Safety-check out

(Only U.S.A. model)

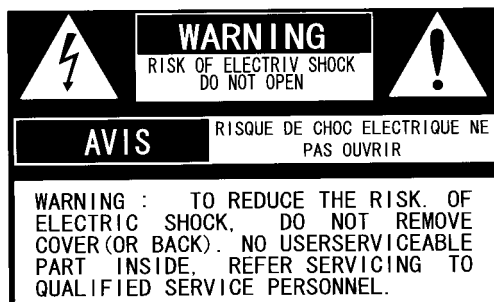
After correcting the original service problem perform the follwing safety check before releasing the set to the customer Connect the insulating-resistance tester between the plug of power supply cord and terminal GND on the back panel. Specifications: More than 10Mohm at 500V

## 3. Regional restriction codes (Region Number)

Regional restriction codes are built into DVD players and DVD videos for each sales region. If the regional code of the DVD receiver dose not match one of the regional codes on the DVD video, playback is not possible.

The regional number can be found on the rear panel of the DVD receiver. (e.g.  for Region 1)

## 4. CAUTION labels



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) instruction in the literature accompanying the appliance.

**WARNING :** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

**CAUTION :** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

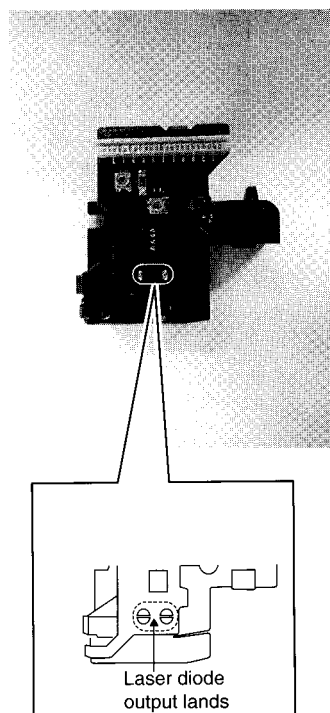
**ATTENTION :** POUR EVITER LES CHOCES ELECTRIQUE, INTRODUIRE LA LAME LA PLUS LARGE DA LA FICHE DANS LA BORNE CORRESPONDANTE DA LA PRISE ET POUSSER JUSQU' AU FOND.

## 5. Replacement of DVD mechanism

The laser diode in the optical pickup block is so sensitive to static electricity, surge current and etc. That the components are liable to be broken down or its reliability remarkable deteriorated.

During repair, carefully take the following precautions. Do not touch the optical pickup object lens with the hands.

- 1) Remove the top cover with eight screws.
- 2) Remove the PC board (NAAR-6953 Main circuit PCB) with two screws.
- 3) Remove the mechanism cover with four screws.
- 4) Solder the LD output lands on the DVD optical pickup.
- 5) Replace the pickup mechanism assembly. Unsolder the laser diode output lands.



# SPECIFICATIONS

## ■ DVD Player

Power supply	AC 120 V, 60 Hz
Power consumption	45 W
Weight	24.7 lbs
External dimensions	17 1/8" x 4 13/16" x 14 7/8" (W/H/D)
Signal system	Standard NTSC
Laser	Semiconductor laser, wavelength 650/780 nm
Frequency range (digital audio)	DVD linear sound: 48 kHz sampling 4 Hz to 22 kHz 96 kHz sampling 4 Hz to 44 kHz 192 kHz sampling 4 Hz to 96 kHz
Signal-to-noise ratio (digital audio)	More than 112 dB
Audio dynamic range (digital audio)	More than 106 dB
Harmonic distortion (digital audio)	Less than 0.002 %
Wow and flutter	Below measurable level (less than $\pm 0.001$ % (W.PEAK))
Operating conditions	Temperature: 5°C to 35°C (41°F to 95°F), Operation status: Horizontal

## ■ Outputs



Video output	1.0 V (p-p), 75 $\Omega$ , negative sync., pin jack $\times$ 2
S-video output	(Y) 1.0 V (p-p), 75 $\Omega$ , negative sync., Mini DIN 4-pin $\times$ 2 (C) 0.286 V (p-p), 75 $\Omega$
Component video output	(Y) 1.0 V (p-p), 75 $\Omega$ , negative sync., pin jack $\times$ 2 (Pb)/(Pr) 0.7 V (p-p), 75 $\Omega$ , pin jack $\times$ 4
Audio output (digital output Optical)	Optical connector $\times$ 2
Audio output (digital output Coaxial)	0.5 V (p-p), 75 $\Omega$ , pin jack $\times$ 2
Audio output (2-Channel Audio)	2.0 V (rms), 320 $\Omega$ , pin jack (L, R) $\times$ 2
Audio output (5.1-Channel Surround)	2.0 V (rms), 320 $\Omega$ , pin jack $\times$ 6 2.0 V (rms), 320 $\Omega$ , DB25 $\times$ 1

## ■ Supplied Accessories

Audio/video connection cable	1
Remote controller (RC-439DV)	1
Batteries (size AA/UM-3)	2
Power cord	1
S-video cable	1
DB-25 cable	1

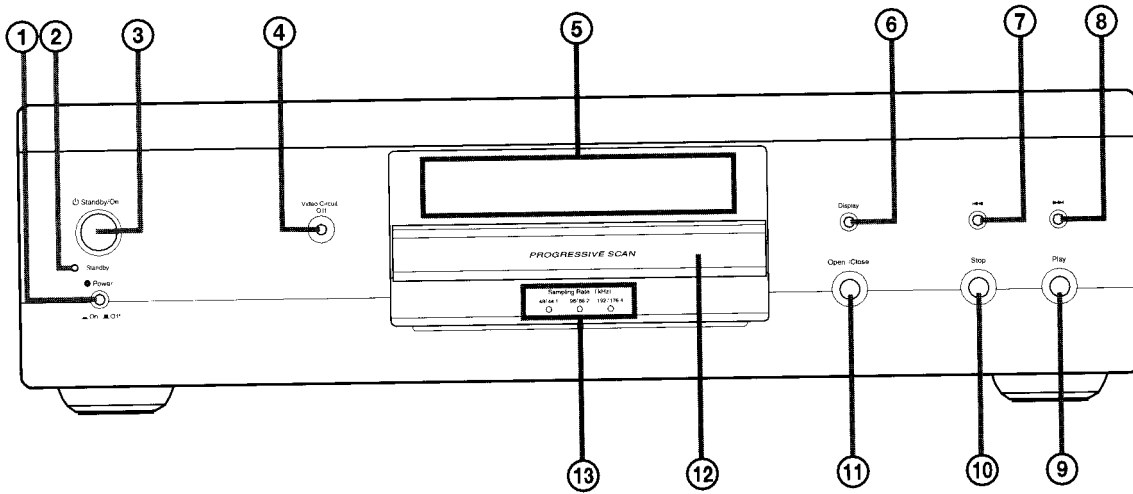
## Playable Discs

This DVD Player can playback the following discs.

	Disc mark	Contents	Disc size
DVD-Video		Audio + Video (moving pictures)	12 cm
			8 cm
DVD-Audio		Audio	12 cm
			8 cm
Video CD		Audio + Video (moving pictures)	12 cm
			8 cm
CD		Audio	12 cm
			8 cm (CD single)

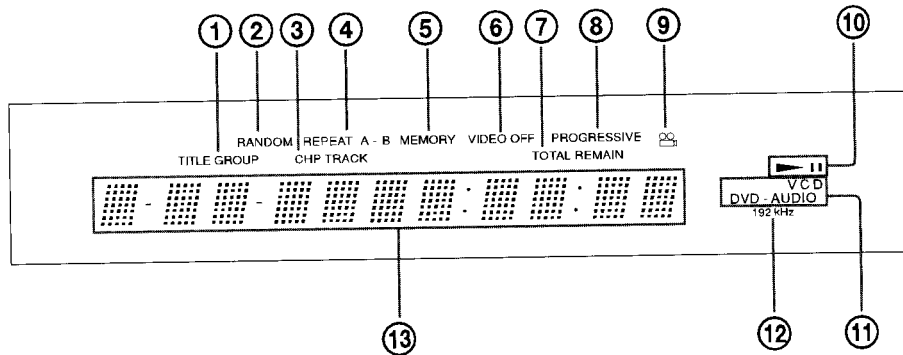
# PANEL VIEWS

## Front panel



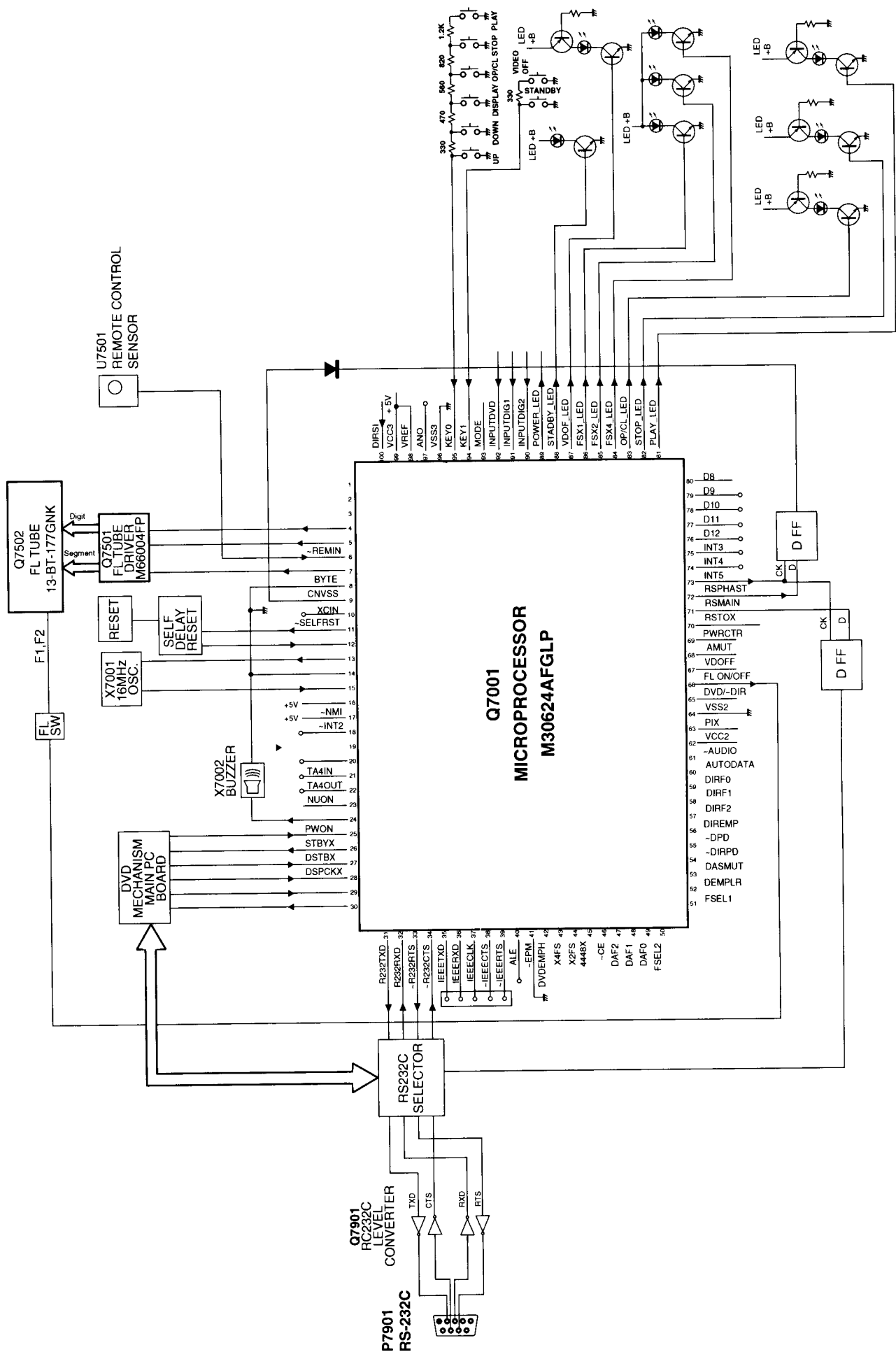
- ① Power button
- ② Standby indicator
- ③ Standby/On button
- ④ Video Circuit Off button
- ⑤ Front panel display
- ⑥ Display button
- ⑦ Left arrow button
- ⑧ Right arrow button
- ⑨ Play button
- ⑩ Stop button
- ⑪ Open/Close button
- ⑫ Disc tray
- ⑬ Audio sampling rate indicators

## Display



- ① TITLE/GROUP indicator
- ② RANDOM indicator
- ③ CHP(Chapter)/TRACK indicator
- ④ REPEAT indicators
- ⑤ MEMORY indicator
- ⑥ VIDEO OFF indicator
- ⑦ TOTAL playing time/REMAINING time elapsed time indicator
- ⑧ PROGRESSIVE indicator
- ⑨ Angle icon indicator
- ⑩ Play mode indicators
- ⑪ Inserted disc indicator
- ⑫ 192 kHz Processing indicator
- ⑬ Multifunction indicator (Indicates operating status, messages, etc.)

# MICROPROCESSOR CONNECTION DIAGRAM



# MICROPROCESSOR TERMINAL DESCRIPTION

Pin No.	Symbol	I/O	Act.	Description	Pin No.	Symbol	I/O	Act.	Description
1	DIRSO	O	H	Serial data signal output terminal to DIR IC.	49	DAF0	O	H	Sampling frequency signal F0 output terminal of D/A converter.
2	DIRSCK	O	CLK	Serial clock signal output terminal to DIR IC.	50	FSEL2	O		Filter coefficient select output terminal of D/A converter.
3	~DIRCS	O	L	Chip select signal output terminal to DIR IC.	51	FSEL1	O		Filter coefficient select output terminal of D/A converter.
4	FLCS	O	H	Chip select signal output terminal to FL tube driver IC.	52	DEEMPLR	O	H	DEEMPL/R output terminal of D/A converter.
5	FLSO	O	H	Serial data signal output terminal to FL tube driver IC.	53	DASMLUT	O	H	Soft mute output terminal of D/A converter.
6	~REMIN	I	L	Signal input terminal from the remote controller.	54	~DIRPD	O	L	Power-down output terminal for DIR IC.
7	FLSCK	O	CLK	Serial clock signal output terminal to FL tube driver IC.	55	~DPD	O	L	Power-down output terminal for the digital section.
8	V <sub>ss</sub>	I		Select input terminal of external data bus. Connect to ground terminal.	56	DIREMP	I	H	Emphasis signal input terminal for DIR IC.
9	V <sub>ss</sub>	I		Input terminal to switch the processor mode. Connect to the power supply (+5V).	57	DIRF2	I	H	F2 signal input terminal for DIR IC.
10				Not used.	58	DIRF1	I	H	F1 signal input terminal for DIR IC.
11	~SEL RST	O	L	Reset terminal when the standard serial writing mode.	59	DIRF0	I	H	F0 signal input terminal for DIR IC.
12	~RESET	I	L	System reset input terminal.	60	AUTODATA	I	H	Auto Data signal input terminal of DIR IC.
13	XOUT	O		Output terminal for main oscillator circuit. Connect the ceramic oscillator 10MHz between this pin and #13.	61	~AUDIO	I	L	Audio signal input terminal of DIR IC.
14	V <sub>ss</sub>	I		Ground terminal.	62	V <sub>cc</sub>	I		Power supply terminal. Apply 5V to this terminal.
15	XIN	I		Input terminal for main oscillator circuit.	63	PIX	I		Progressive judge input terminal.
16	V <sub>cc</sub>	I		Power supply terminal. Apply 5V to this terminal.	64	V <sub>ss</sub>	I		Ground terminal.
17,18				Not used.	65	~DVD/DIR	O	L	Select signal output terminal for audio of DVD/DIR. L.:DVD
19	ERROR	I	H	Lock error signal input terminal from DIR IC.	66	FL ON/OFF	O	H	Not used.
20-22				Not used.	67	~VDOFF	O	L	Video output control signal output terminal.
23	~NUON	I	L	Initializing input terminal of NUON.	68	AMUT	O	H	Muting output terminal for audio section.
24	BZZER	O	H	Buzzer control output terminal.	69	PWRCTR	O	H	Control output terminal for power supply.
25	PW ON	I	H	Information input terminal of power source from main board of DVD mechanism.	70	RSTOX	O	L	Reset output terminal for device.
26	STBYX	O	L	Standby condition output terminal to the main board of mechanism.	71	RSMAIN	O	H	RS232C input select terminal.
27	DSTBX	I	L	Strobe signal input terminal to transfer the serial data from the mechanism microprocessor.	72	~RSPHAST	O	H	RS232C change-over switch control output terminal.
28	DSPCKX	I	CLK	Clock signal input terminal to transfer the serial data from the mechanism microprocessor.	73	RSLATCH	O	H	Latch signal output terminal for 74CK. Latch at leading edge.
29	IICLK/DSPSO	I	CLK	Serial data input terminal from the mechanism microprocessor.	74-79				Not used.
30	IICDATA/DSPS	I/O		Serial data output terminal to the mechanism microprocessor.	80	DLYPW	O	H	Delayed power supply output terminal to main board.
31	R232TXD	O		Serial data output terminal when the program is written.	81	PLAY LED	O	H	PLAY indicator control output terminal
32	R232RXD	I		Serial data input terminal to write the program.	82	STOP LED	O	H	STOP indicator control output terminal
33	~R232RTS	I/O		Serial clock input terminal to write the program.	83	OPEN LED	O	H	OPEN/CLOSE indicator control output terminal
34	~R232CTS	I/O	H	Busy signal output terminal when the program is written.	84	FSX4 LED	O	H	192/176.4 kHz indicator control output terminal
35	IEEETXD	O		TXD terminal for communication of microprocessor IEE1394.	85	FSX2 LED	O	H	96/88.2 kHz indicator control output terminal
36	IEEERXD	I		RXD terminal for communication of microprocessor IEE1394.	86	FSX1 LED	O	H	48/44.1 kHz indicator control output terminal
37	IEEELCK	I	CLK	SCLK terminal for communication of microprocessor IEE1394.	87	VDOF LED	O	H	VIDEO OFF indicator control output terminal
38	~IEEECTS	I	L	CST input terminal for communication of microprocessor IEE1394.	88	STADBY LED	O	H	STANDBY OFF indicator control output terminal
39	~IEEERTS	O	L	CST output terminal for communication of microprocessor IEE1394.	89	POWER LED	O	H	POWER ON indicator control output terminal
40				Not used.	90	~INPUTDIG2	I	L	Select input terminal for external input 2 of digital input.
41	~EPM			Connect to the ground when the program is written.	91	~INPUTDIG1	I	L	Select input terminal for external input 1 of digital input.
42	DVDEMP	I	H	Emphasis signal input terminal for DVD.	92	~INPUTDVID	I	L	Select input terminal for internal input of digital input.
43	X4FS	I	H	Four times over-sampling frequency input terminal for DVD.	93	MODE	I		Mode input terminal
44	X2FS	I	H	Two times over-sampling frequency input terminal for DVD.	94	KEY1	I		Operation key 1 input terminal
45	4448X	I	H	Sampling frequency input terminal for DVD.H:44kHz L:48kHz	95	KEY0	I		Operation key 2 input terminal
46	~CE			Connect to the power supply 5V when the program is written.	96	V <sub>ss</sub>	I		Power supply terminal for A/D converter.
47	DAF2	O	H	Sampling frequency signal F2 output terminal of D/A converter.	97				Connect to the ground terminal.
48	DAF1	O	H	Sampling frequency signal F1 output terminal of D/A converter.	98	VREF	I		Reference voltage terminal for A/D converter.
					99	V <sub>cc</sub>	I		Power supply terminal for A/D converter. Apply 5V.
					100	DIRSI	I	H	Serial data input terminal from DIR IC.

# PRINTED CIRCUIT BOARD PARTS LIST

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

## DISPLAY CIRCUIT PC BOARD (NADIS-6940-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>FL tube</b>	
Q7502	212212	13-BT-177GNK
	<b>Remote sensor</b>	
U7501	241329	PIC-26043TH2
	<b>IC</b>	
Q7501	22240685R9	M66004FP
	<b>Transistors</b>	
Q7503,Q7504	2213145R2	2SC2712-GR
Q7505,Q7506	2216270R2	IMT1A
Q7507,Q7511	2216270R2	IMT1A
Q7508,Q7509	2216260R2	RN1407
Q7510,Q7512	2216260R2	RN1407
	<b>Diodes</b>	
D7502,D7504	225390	SEL2910A-TP6
D7506,D7508	225390	SEL2910A-TP6
D7507	224490750R2 or	UDZ7.5B or
	224550750R2	UDZS7.5B
	<b>Capacitors</b>	
C7505,C7512	393321017	100 $\mu$ F,6.3 V,Elect.
C7511	393381007	10 $\mu$ F,50 V,Elect.
C7514,C7517	393382207	22 $\mu$ F,50 V,Elect.
C7520	355721019	100 $\mu$ F,6.3V,Elect.
	<b>Switches</b>	
S7501-S7507	25035699	NPS-111-S662
	<b>Sockets</b>	
P7001B	25052255	NSCT-22P2152
P7002B	2002A391830	NSAS-18P0872
P7701B	25051089	NSCT-5P876
	<b>Plug</b>	
P7501A	25055369	NPLG-5P352
	<b>Holder</b>	
Q7502A	27191114	FL
E7502-E7504	27191115	LED

## STANDBY SWITCH PC BOARD (NASW-6941-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q7703	2216260R2	RN1407,Transistor
D7701	225290	SEL4110R,LED
C7703	393321017	100 $\mu$ F,6.3 V,Elect. Capacitor
S7701	25035699	NPS-111-S662,Switch
P7701A	25051089	NSCT-5P876,Socket

## POWER SWITCH PC BOARD(NASW-6943-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
S9002	$\Delta$ 25035550	NPS-111-L512P,Push switch
C9003	$\Delta$ 3500196S	RE275V-103M,IS capacitor

## POWER SUPPLY CIRCUIT PC BOARD(NAPS-6944-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>ICs</b>	
Q9101,Q9102	22278005ENEC	MPC29M05HF
Q9301,Q9401	22241526	PQ30RV21
	<b>Transistors</b>	
Q9103,Q9104	2214490R2	RN1404
Q9202,Q9704	2214540R2	RN2403
Q9701	2211504	2SA950-Y
Q9705,Q9706	2211164	2SC2120-Y
Q9707	2214490R2	RN1404

## CIRCUIT NO. PART NO. DESCRIPTION

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Diodes</b>	
D9101,D9201	$\Delta$ 22380022	RBV402
D9103,D9105	22380035	GP104003E
D9203,D9204	223234R2 or	1SS352 or
D9303,D9304	223269R2	1SS355
D9301,D9401	$\Delta$ 22380022	RBV402
D9501-D9504	22380284R2	1SR154-400
D9601-D9604	22380284R2	1SR154-400
D9701	22380013	RDF02M
D9702	224492700R2	UDZ27B
D9703,D9704	22380035	GP104003E
	<b>Capacitors</b>	
C9101,C9105	374723344	0.33 $\mu$ F $\pm$ 5%,50V,Plastic
C9102,C9302	393342227S	2200 $\mu$ F,16 V,Elect.
C9103	393344707	47 $\mu$ F,16 V,Elect.
C9106	393321017	100 $\mu$ F,6.3 V,Elect.
C9201,C9203	374723344	0.33 $\mu$ F $\pm$ 5 %,50 V,Plastic
C9202	393344727S	4700 $\mu$ F,16 V,Elect.
C9301,C9303	374723344	0.33 $\mu$ F $\pm$ 5 %,50 V,Plastic
C9304	393380107	1 $\mu$ F,50 V,Elect.
C9305,C9405	393322217	220 $\mu$ F,6.3 V,Elect.
C9401,C9403	374723344	0.33 $\mu$ F $\pm$ 5 %,50 V,Plastic
C9402	393343327S	3300 $\mu$ F,16 V,Elect.
C9404	393384797	0.47 $\mu$ F,50 V,Elect.
C9502,C9503	374723344	0.33 $\mu$ F $\pm$ 5 %,50 V,Plastic
C9504,C9505	3504369	2200 $\mu$ F,25 V,Elect.
C9602,C9603	374723344	0.33 $\mu$ F $\pm$ 5 %,50 V,Plastic
C9604,C9605	393342227S	2200 $\mu$ F,16 V,Elect.
C9701,C9708	374723344	0.33 $\mu$ F $\pm$ 5 %,50 V,Plastic
C9702	393384707	47 $\mu$ F,50 V,Elect.
C9703,C9705	393382207	22 $\mu$ F,50 V,Elect.
C9706,C9707	393382217	220 $\mu$ F,50 V,Elect.
	<b>Resistors</b>	
R9209,R9210	453532294	0.22 $\Omega$ $\pm$ 5 %,1/2 W,Metal
R9408	453530224	2.2 $\Omega$ $\pm$ 5 %,1/2 W,Metal
R9409	453532294	0.22 $\Omega$ $\pm$ 5 %,1/2 W,Metal
R9601-R9604	453532294	0.22 $\Omega$ $\pm$ 5 %,1/2 W,Metal
R9706,R9707	415470824	8.2 $\Omega$ $\pm$ 5 %,1/4 W,Carbon
R9708	443521004	10 $\Omega$ $\pm$ 5 %,1/2 W,Metal oxide
	<b>Sockets</b>	
CN501	2002A262625	NSAS-26P0875
P2201A	2003B090830	NSAS-8P0876
P4001A	2003B091830	NSAS-18P0877
P7003A	2002A392225	NSAS-22P0874
P9101,P9102	25055171	NPLG-8P155
P9201A	2004C291015	NSAS-10P0902,Socket
	<b>Radiators</b>	
E9101A	27160465	RAD-135
E9111A	27160472	RAD-141
E9112A,E9311A	27160220-1	RAD51(B)
E9301A,E9401A	27160357	(S3)
E9411A	27160220-1	RAD51(B)
	<b>Screws</b>	
E9101B,E9111B	82143010	3P+10FN(BC),Pan head
E9112B	82143010	3P+10FN(BC),Pan head
E9301B,E9311B	82143010	3P+10FN(BC),Pan head
E9401B,E9411B	82143010	3P+10FN(BC),Pan head

**PRIMARY CIRCUIT PC BOARD(NAPS-6945-3)**

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>Diode</b>			<b>Capacitors</b>
D9801	△ 22380022	RBV402	C2007-C2012	393380107	1 μF,50 V,Elect.
		<b>Coils</b>	C2020,C2023	393380107	1 μF,50 V,Elect.
L9001	231252 or	NCH-3489 or	C2039	393321017	100 μF,6.3 V,Elect.
	231287	NCH-3567	C2041,C2042	393321017	100 μF,6.3 V,Elect.
		<b>Capacitors</b>	C2043,C2044	355721019	100 μF,6.3 V,Elect.
C9001,C9002	3500077	DE7150F-472M,IS	C2051,C2052	393321017	100 μF,6.3 V,Elect.
C9801,C9803	374723344	0.33 μF ±5 %,50 V,Plastic	C2057,C2059	393321017	100 μF,6.3 V,Elect.
C9804	393382227S	2200 μF,50 V,Elect.	C2201,C2202	393344717	470 μF,16 V,Elect.
		<b>Resistors</b>	C2203,C2204	393344707	47 μF,16 V,Elect.
R9101	453530104	1 Ω ±5 %,1/2 W,Metal	C2205,C2206	393322217	220 μF,6.3 V,Elect.
R9803	453532294	0.22 Ω ±5 %,1/2 W,Metal			<b>Resistors</b>
		<b>Fuseholders</b>	R2207,R2208	415470224	2.2 Ω ±5 %,1/4 W,Carbon
F9001A,F9001B	△ 25052133	NSCT-1P2031			<b>Terminals</b>
		<b>Plugs</b>	P2001	25045632	NPJ-2PDYE439
P6001A	25055132	NPLG-2P116	P2002	25045633	NPJ-14PDRGB440
P9001	25055960	NPLG-2P913			<b>Sockets</b>
P9002,P9003	25055675	NPLG-2P631	CN301	25052584R2	NSCT-18P2481
P9103	25055165	NPLG-2P149			<b>Plugs</b>
		<b>Radiator</b>	P2201	25055134	NPLG-4P118
E9801A	27160357	(S3)	P2101A	25055707	NPLG-11P663
		<b>Screw</b>			<b>Radiators</b>
E9801B	82143010	3P+10FN(BC),Pan head	E2201A,E2202A	27160220-1	RAD51(B)
		<b>Clampers</b>			<b>Screws</b>
E9001,E9003	27301394	HL-18-0	E2201B,E2202B	82143010	3P+10FN(BC),Pan head
		<b>Heat sink</b>			
E9211A	27160472	RAD-141			
		<b>Screw</b>			
E9211B	82143010	3P+10FN(BC),Pan head			

**VIDEO CIRCUIT PC BOARD(NAVD-6946-3)**

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>ICs</b>
Q2016	22241465R2	LA7106MFP
Q2017	22241440R2	MAX4018ESD
Q2018,Q2020	22241527R2	EL4581CS
Q2023,Q2024	22241159R2	TC7S02FU
Q2029-Q2031	22241545R2	EL2280CS
Q2032,Q2033	22241442R2	MAX4218ESD
Q2034	22241443R2	TK15420M
		<b>Transistors</b>
Q2001-Q2006	2214375R2	2SA1162-GR
Q2007-Q2009	2213145R2	2SC2712-GR
Q2010-Q2012	2214375R2	2SA1162-GR
Q2013-Q2015	2213145R2	2SC2712-GR
Q2021,Q2028	2214490R2	RN1404
Q2026 ,Q2027	2213145R2	2SC2712-GR
Q2201	2202715	2SB1565-E
Q2202	2202705	2SD2394-E
Q2203	2213145R2	2SC2712-GR
Q2204,Q2206	2214375R2	2SA1162-GR
Q2205	2214490R2	RN1404
		<b>Diodes</b>
D2001	223234R2	1SS352
D2002	225383R2	SEC1401C
D2003-D2008	223234R2	1SS352
D2201,D2202	224550560R2	UDZS5.6B
		<b>Composite parts</b>
Z2001-Z2003	3030043	YS-2L(15MHz)

**MICROPROCESSOR PC BOARD (NADG-6949-3)**

CIRCUIT NO.	PART NO.	DESCRIPTION
		<b>ICs</b>
Q7001	22241512	M30624FGAFP
Q7003	22240018	M51943ASL
Q7301	222742415R2	TC74HC241AF
Q7302,Q7303	22241408R2	TC7W74FU
Q7304	22241159R2	TC7S02FU
Q7305	22240935R2	TC7WU04FU
		<b>Diodes</b>
D7001	223234R2 or	1SS352 or
	223269R2	1SS355
D7301,D7302	223234R2 or	1SS352 or
D7305,D7306	223269R2	1SS355
D7303,D7304	225385R2	SEC1201C
		<b>Buzzer</b>
X7002	3010309	PKM13EPY-4002
		<b>Oscillator</b>
X7001	3010329R2	CSTCV16.00MXJ0C
		<b>Coil</b>
L7301	231237K022R2	NCH-1471
		<b>Capacitors</b>
C7005,C7007	393321017	100 μF,6.3 V,Elect.
C7301,C7303	393321017	100 μF,6.3 V,Elect.
		<b>Switch</b>
S7301	25035699	NPS-111-S662
		<b>Sockets</b>
CN602	25052579R2	NSCT-13P2476
P7001A	25052218	NSCT-22P2115
P7005A	25052572R2	NSCT-6P2469
P7301A	25052579R2	NSCT-13P2476



CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Plugs</b>	
CN601	25056050R2	NPLG-6P1000
P7002A	25055153	NPLG-9P137
P7003B	25055155	NPLG-11P139
P7302	25055704	NPLG-8P660
	<b>Clamp</b>	
E7003	260226	CP-2S
E7002	27190608-1	UA-0 V0
	<b>Holder</b>	
E7001	27190540-1	

**OUTPUT TERMINAL PC BOARD (NAAF-6950-3)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>ICs</b>	
Q3501	222740046R2	TC74HCU04F
Q5101,Q5111	22241448R2	NJM4580M-D
Q5131	22241448R2	NJM4580M-D
Q5301,Q5501	22241448R2	NJM4580M-D
Q9201	22241526	PQ30RV21
	<b>Photo couplers</b>	
Q3502,Q3503	24120085	GP1FA551TZ
	<b>Transistors</b>	
Q5001,Q5002	2214375R2	2SA1162-GR
Q5102,Q5201	2214540R2	RN2403
Q5103,Q5112	2216141R2	HN1C03F-B
Q5132,Q5203	2216141R2	HN1C03F-B
Q5212,Q5232	2216141R2	HN1C03F-B
Q5302,Q5401	2214540R2	RN2403
Q5303,Q5403	2215940R2	FMG12
Q5502,Q5601	2214540R2	RN2403
Q5503,Q5603	2215940R2	FMG12
	<b>Diodes</b>	
D5001,D5002	223234R2 or 223269R2	1SS352 or 1SS355
	<b>Coil</b>	
L3501	231237K022R2	NCH-1471
	<b>Capacitors</b>	
C3502,C3504	393321017	100 $\mu$ F,6.3V,Elect.
C3506	393321017	100 $\mu$ F,6.3V,Elect.
C5003,C5004	393344707	47 $\mu$ F,16V,Elect.
C5015,C5016	393324717	470 $\mu$ F,6.3V,Elect.
C5101,C5111	393884707	47 $\mu$ F,50V,Elect.
C5131,C5201	393884707	47 $\mu$ F,50V,Elect.
C5211,C5231	393884707	47 $\mu$ F,50V,Elect.
C5301,C5401	393884707	47 $\mu$ F,50V,Elect.
C5501,C5601	393884707	47 $\mu$ F,50V,Elect.
C9204	393380227	2.2 $\mu$ F,50V,Elect.
C9205	393324717	470 $\mu$ F,6.3V,Elect.
	<b>Terminals</b>	
P3501,P3502	25045636	NPJ-1PDOR442
P5001	25045637	NPJ-4PDWR443
P5002	25045638	NPJ-6PDBWR444
	<b>Sockets</b>	
P3001B	2009990632	NSAS-6P0878
P4002B,P5003A	25052593R2	NSCT-27P2490
	<b>Plugs</b>	
P9201B	25055149	NPLG-5P133
	<b>Radiator</b>	
E9201A	27160465	RAD-135
	<b>Screw</b>	
E9201B	82143010	3P+10FN(BC),Pan head
	<b>Clamp</b>	
E5001	260224	CP-1S

**MULTI CHANNEL OUTPUT TERMINAL PC BOARD (NAAF-6951-3)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>ICs</b>	
Q6101,Q6301	22241448R2	NJM4580M-D
Q6501	22241448R2	NJM4580M-D
Q7901	22241447R2	MAX202CSE
	<b>Transistors</b>	
Q6001	2214375R2	2SA1162-GR
Q6102,Q6202	2214540R2	RN2403
Q6103,Q6203	2215940R2	FMG12
Q6302,Q6402	2214540R2	RN2403
Q6303,Q6403	2215940R2	FMG12
Q6502,Q6602	2214540R2	RN2403
Q6503,Q6603	2215940R2	FMG12
	<b>Diode</b>	
D6001	223234R2 or 223269R2	1SS352 or 1SS355
	<b>Filters</b>	
L7902-L7905	230958R1	BK1608LM182-T
	<b>Coil</b>	
L7901	231237K022R2	NCH-1471
	<b>Capacitors</b>	
C6001	393324717	470 $\mu$ F,6.3V,Elect.
C6008,C6009	393344707	47 $\mu$ F,16V,Elect.
C6101,C6201	393884707	47 $\mu$ F,50V,Elect.
C6301,C6401	393884707	47 $\mu$ F,50V,Elect.
C6501,C6601	393884707	47 $\mu$ F,50V,Elect.
C7905	393321017	100 $\mu$ F,6.3V,Elect.
	<b>Sockets</b>	
P2101B	25051236	NSCT-11P1026
P5003B	25052593R2	NSCT-27P2490
P6001	25052597	NSCT-25P2494
P7301B	25052579R2	NSCT-13P2476
P7901	25052379	NSCT-9P2277

**SAMPLING INDICATOR PC BOARD(NAETC-6952-3)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Transistors</b>	
Q7601	2216270R2	IMT1A
Q7602	2214375R2	2SA1162-GR
Q7603-Q7605	2216260R2	RN1407
	<b>LEDs</b>	
D7601-D7603	225382R2	SEC1E01C
	<b>Capacitor</b>	
C7605	355780229	2.2 $\mu$ F,50V,Elect.
	<b>Socket</b>	
P7501B	2002A391025	NSAS-10P0871

**MAIN CIRCUIT PC BOARD(NAAR-6953-2)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>ICs</b>	
Q3001,Q3101	22241489R2-1	AD1853JRS
Q3004,Q3104	22241289R2	NJM2370U05
Q3201	22241489R2-1	AD1853JRS
Q3204	22241289R2	NJM2370U05
Q3401,Q3402	22241288R2	NJU6321PE
Q3403	22240947R2	TC7W241FU
Q4101,Q4201	22241488R2	OPA2604AU
Q4102,Q4202	22241448R2	NJM4580M-D
Q4301,Q4401	22241488R2	OPA2604AU
Q4302,Q4402	22241448R2	NJM4580M-D
Q4501,Q4601	22241488R2	OPA2604AU
Q4502,Q4602	22241448R2	NJM4580M-D

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Q3002,Q3003	2214490R2	RN1404	E4003	260224	CP-1S
Q3102,Q3103	2214490R2	RN1404	J01A-J03A	27141753	BBL50
Q3202,Q3203	2214490R2	RN1404	E3451A,E3452A	27160220-1	RAD51(B)
Q3404,Q3405	2214490R2	RN1404	E4001,E4002	27190608-1	UA-0 V0
Q3451	2202715	2SB1565-E	E3451B,E3452B	82143010	3P+10FN(BC),Pan head
Q3452	2202705	2SD2394-E	<b>OUTPUT TERMINAL PC BOARD (NAAF-6950-3)</b>		
Q3453	2213145R2	2SC2712-GR	<b>CIRCUIT NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Q3454	2214375R2	2SA1162-GR			
Q3455,Q3457	2214490R2	RN1404	Q3501	222740046R2TO	TC74HCU04F
Q3456	2214540R2	RN2403	Q5101,Q5111	22241448R2	NJM4580M-D
D3401-D3404	223234R2 or	1SS352 or	Q5131	22241448R2	NJM4580M-D
D3406	223269R2	1SS355	Q5301,Q5501	22241448R2	NJM4580M-D
D3405	224490330R2	UDZ3.3B	Q9201	22241526	PQ30RV21
D3451,D3452	224491200R2	UDZ12B	Q3502,Q3503	24120085	GP1FA551TZ
R3410	230959R1	BK1608LL241-T	Q5001,Q5002	2214375R2	2SA1162-GR
X3401	3010331R2	HC-49/U03C24.576MHz	Q5102,Q5201	2214540R2	RN2403
X3402	3010330R2	HC-49/U03C22.5792MHz	Q5103,Q5112	2216141R2	HN1C03F-B
C3002,C3006	393321017	100 $\mu$ F,6.3 V,Elect.	Q5132,Q5203	2216141R2	HN1C03F-B
C3004,C3008	393341007	10 $\mu$ F,16 V,Elect.	Q5212,Q5232	2216141R2	HN1C03F-B
C3010,C3102	393321017	100 $\mu$ F,6.3 V,Elect.	Q5302,Q5401	2214540R2	RN2403
C3012,C3112	393344707	47 $\mu$ F,16 V,Elect.	Q5303,Q5403	2215940R2	FMG12
C3013,C3104	393341007	10 $\mu$ F,16 V,Elect.	Q5502,Q5601	2214540R2	RN2403
C3106,C3110	393321017	100 $\mu$ F,6.3 V,Elect.	Q5503,Q5603	2215940R2	FMG12
C3108,C3113	393341007	10 $\mu$ F,16 V,Elect.	D5001,D5002	223234R2 or	1SS352 or
C3202,C3206	393321017	100 $\mu$ F,6.3 V,Elect.		223269R2	1SS355
C3204,C3208	393341007	10 $\mu$ F,16 V,Elect.	L3501	231237K022R2	NCH-1471
C3210,C3410	393321017	100 $\mu$ F,6.3 V,Elect.	C3502,C3504	393321017	100 $\mu$ F,6.3 V,Elect.
C3212	393344707	47 $\mu$ F,16 V,Elect.	C3506	393321017	100 $\mu$ F,6.3 V,Elect.
C3213	393341007	10 $\mu$ F,16 V,Elect.	C5003,C5004	393344707	47 $\mu$ F,16 V,Elect.
C3451,C3452	393354717	470 $\mu$ F,25 V,Elect.	C5015,C5016	393324717	470 $\mu$ F,6.3 V,Elect.
C3453,C3454	393344707	47 $\mu$ F,16 V,Elect.	C5101,C5111	393884707	47 $\mu$ F,50 V,Elect.
C3455,C3456	393342217	220 $\mu$ F,16 V,Elect.	C5131,C5201	393884707	47 $\mu$ F,50 V,Elect.
C4106,C4107	372803314	330 pF $\pm$ 5 %,125 V,PP	C5211,C5231	393884707	47 $\mu$ F,50 V,Elect.
C4111,C4211	374728214	820 pF $\pm$ 5 %,50 V,Plastic	C5301,C5401	393884707	47 $\mu$ F,50 V,Elect.
C4112,C4212	372802714	270 pF $\pm$ 5 %,125 V,PP	C5501,C5601	393884707	47 $\mu$ F,50 V,Elect.
C4115,C4116	393344707	47 $\mu$ F,16 V,Elect.	C9204	393380227	2.2 $\mu$ F,50 V,Elect.
C4206,C4207	372803314	330 pF $\pm$ 5 %,125 V,PP	C9205	393324717	470 $\mu$ F,6.3 V,Elect.
C4215,C4216	393344707	47 $\mu$ F,16 V,Elect.	P3501,P3502	25045636	NPJ-1PDOR442
C4306,C4307	372803314	330 pF $\pm$ 5 %,125 V,PP	P5001	25045637	NPJ-4PDWR443
C4311,C4411	374728214	820 pF $\pm$ 5 %,50 V,Plastic	P5002	25045638	NPJ-6PDBWR444
C4312,C4412	372802714	270 pF $\pm$ 5 %,125 V,PP	P3001B	2009990632	NSAS-6P0878
C4315,C4316	393344707	47 $\mu$ F,16 V,Elect.	P4002B,P5003A	25052593R2	NSCT-27P2490
C4406,C4407	372803314	330 pF $\pm$ 5 %,125 V,PP	P9201B	25055149	NPLG-5P133
C4415,C4416	393344707	47 $\mu$ F,16 V,Elect.	E9201A	27160465	RAD-135
C4506,C4507	372803314	330 pF $\pm$ 5 %,125 V,PP	E9201B	82143010	3P+10FN(BC),Pan head
C4511,C4611	374728214	820 pF $\pm$ 5 %,50 V,Plastic	E5001	260224	CP-1S
C4512,C4612	372802714	270 pF $\pm$ 5 %,125 V,PP			
C4515,C4516	393344707	47 $\mu$ F,16 V,Elect.			
C4606,C4607	372803314	330 pF $\pm$ 5 %,125 V,PP			
C4615,C4616	393344707	47 $\mu$ F,16 V,Elect.			
R3457,R3548	415470474	4.7 $\Omega$ $\pm$ 5 %,1/4 W,Carbon			
P3003A	25052573R2	NSCT-7P2470			
CN901B	25052592R2	NSCT-26P2489			
P4002A	25052593R2	NSCT-27P2490			
P3001A	25055133	NPLG-3P117			
P4001A	25055139	NPLG-9P123			

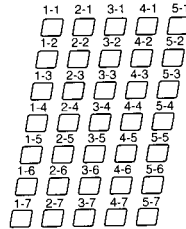
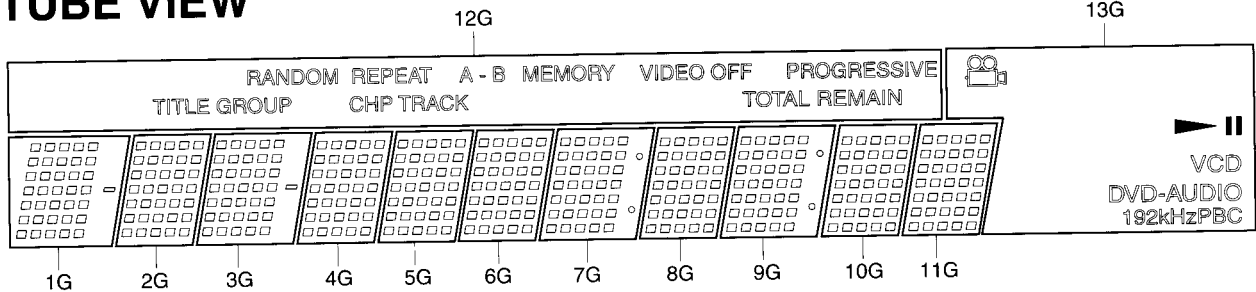


# DVD MECHANISM PARTS LIST

## MGD-32 SERVICE PARTS LIST

No	PART NO	PART NAME	Q'ty
1	A10-3322	CHASSIS ASSY	1
2	E35-1698	WIRE HARNESS(T)	1
3	S64-0026	LEVER SWITCH SSS-23	1
4	N82-2608	BIND TAP TITE SCREW 2.6*8	8
5	D13-1782	GEAR (CENTER)	1
6	D13-0977	GEAR (CARRIER)	1
7	D13-0978	GEAR (IDLER)	2
8	D13-0979	GEAR (MAIN)	1
9	N19-0891	FLAT WASHER 2.6*4.7*0.5 CUT	2
10	D10-3683	SLIDER	1
11	30D 8001	ROD(GUIDE)H	1
12	N09-3385	WASHER HEAD TAPPING SCREW 2.6*6	5
13	T42-0811	DC MOTOR MSN5G543C	1
14	D15-0295	MOTOR PULLEY	1
15	D13-1783	GEAR(PULLEY)	1
16	D16-0712	BELT	1
17	30B 3002	SUB CHASSIS (FRAME-T)	1
19	30D 4001	DAMPER-MGD32-F	2
20	30D 4002	DAMPER-MGD32-R	2
21	30C 3001	BRACKET(T)	1
22	N86-2006	BIND TAP TITE SCREW 2*6	1
24	N09-3359	TAP TITE SCREW 2.6*8	4
25	30C 3011	TRAY(B)	1
26	30D 8003	SHAFT(TRAY L)H	1
27	D23-0326	REATINER(L)	1
28	N88-2606	FLAT TAP TITE SCREW 2.6*6	3
29	30D 8002	SHAFT(TRAY R)H	1
30	D23-0327	RETAINER(R)	1
31	30C 1003	SUB CHASSIS (CLAMP)	1
32	30D 1002	YORK(CLAMPER-T)	1
33	90999019	MAGNET(T)	1
34	N78-2080	PAN TAP TITE SW	1
35	G10-0146	NON-WOVEN-FABRIC 10*30	1
36	S64-0027	LEVER SWITCH	1
38	E6D 8011	SCREW(SUB-L)	1
39	30C 3005	CLAMPER(GUIDE-T)	1
40	30C 3004	CLAMPER(T)	1
41	D10-3710	SLIDER	1

# FL TUBE VIEW

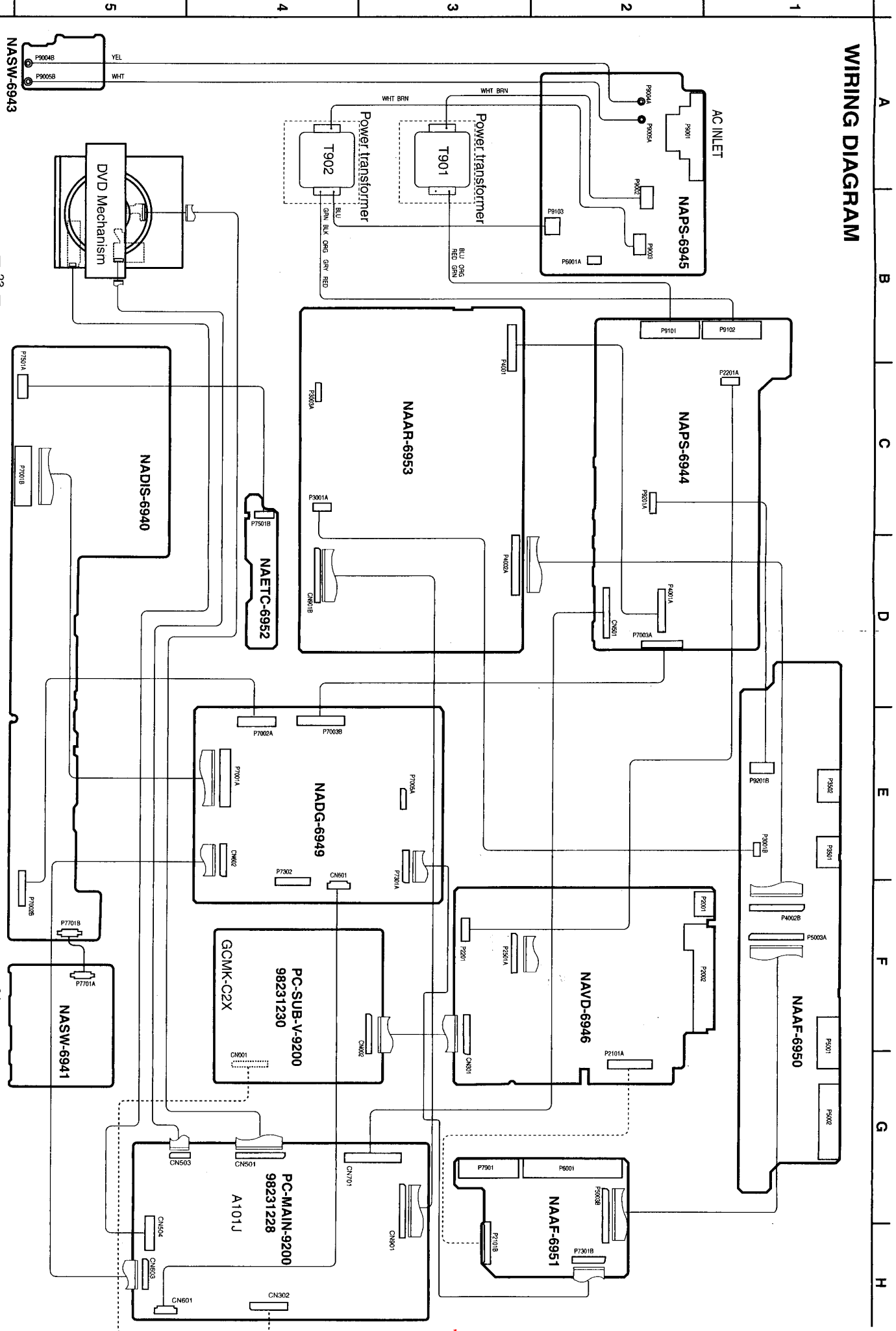


## ANODE CONNECTION

	1G 3G	2G 4G-6G 8G 10G 11G	7G 9G	12G	13G
P1	1-1	1-1	1-1	—	—
P2	2-1	2-1	2-1	—	—
P3	3-1	3-1	3-1	TITLE	—
P4	4-1	4-1	4-1	GROUP	—
P5	5-1	5-1	5-1	RANDOM	—
P6	1-2	1-2	1-2	REPEAT	—
P7	2-2	2-2	2-2	CHP	—
P8	3-2	3-2	3-2	TRACK	—
P9	4-2	4-2	4-2	A	—
P10	5-2	5-2	5-2	- B	—
P11	1-3	1-3	1-3	MEMORY	—
P12	2-3	2-3	2-3	VIDEO OFF	—
P13	3-3	3-3	3-3	TOTAL	—
P14	4-3	4-3	4-3	REMAIN	—
P15	5-3	5-3	5-3	PROGRESSIVE	—
P16	1-4	1-4	1-4	—	—
P17	2-4	2-4	2-4	—	
P18	3-4	3-4	3-4	—	—
P19	4-4	4-4	4-4	—	1
P20	5-4	5-4	5-4	—	2
P21	1-5	1-5	1-5	—	
P22	2-5	2-5	2-5	—	
P23	3-5	3-5	3-5	—	
P24	4-5	4-5	4-5	—	—
P25	5-5	5-5	5-5	—	V
P26	1-6	1-6	1-6	—	CD
P27	2-6	2-6	2-6	—	DVD
P28	3-6	3-6	3-6	—	-AUDIO
P29	4-6	4-6	4-6	—	192kHz
P30	5-6	5-6	5-6	—	—
P31	1-7	1-7	1-7	—	—
P32	2-7	2-7	2-7	—	—
P33	3-7	3-7	3-7	—	—
P34	4-7	4-7	4-7	—	—
P35	5-7	5-7	5-7	—	—
P36		—	col.	—	—

# WIRING DIAGRAM

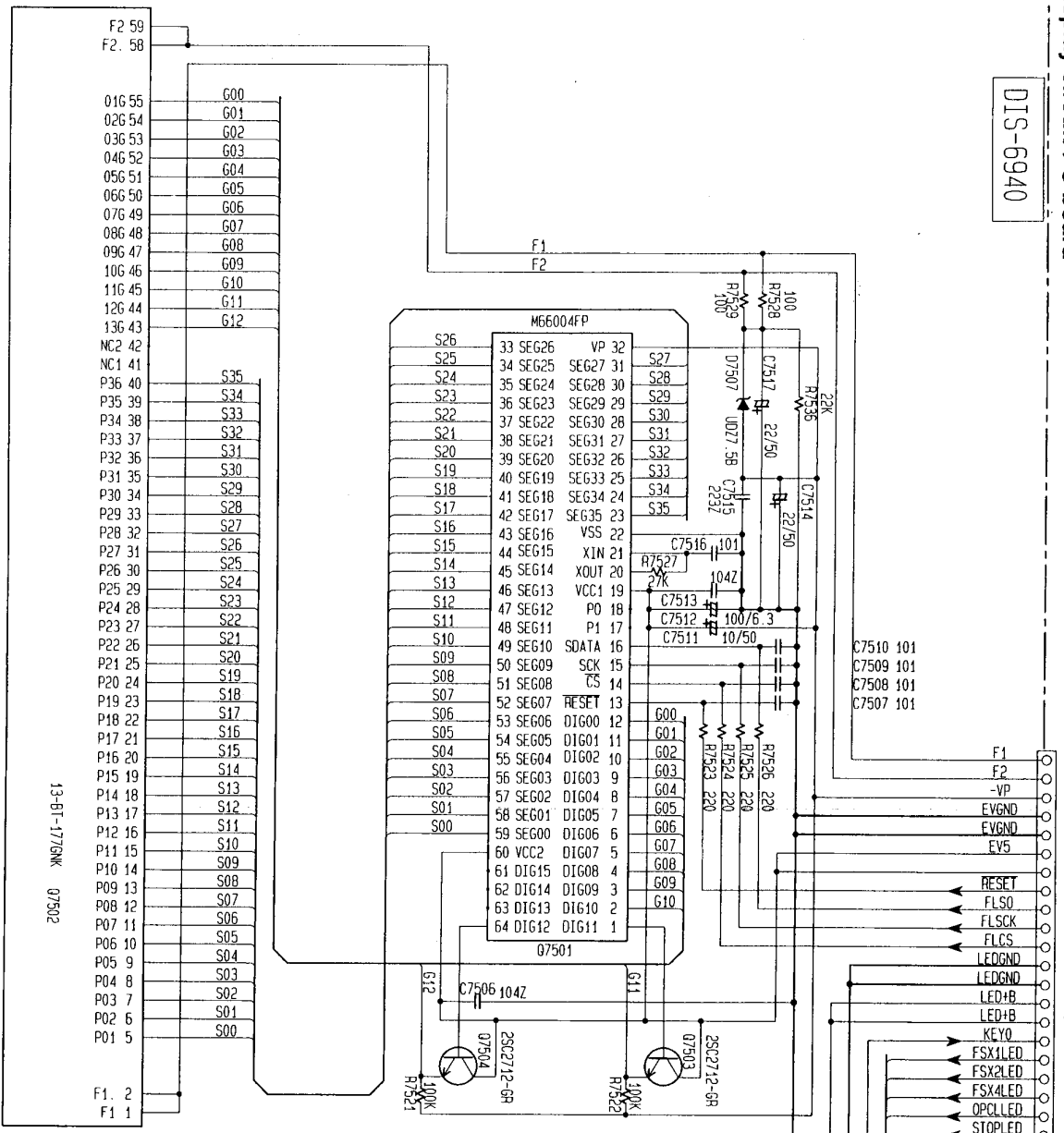
DPS-9.1 DPS-9.1



# SCHEMATIC DIAGRAM 1

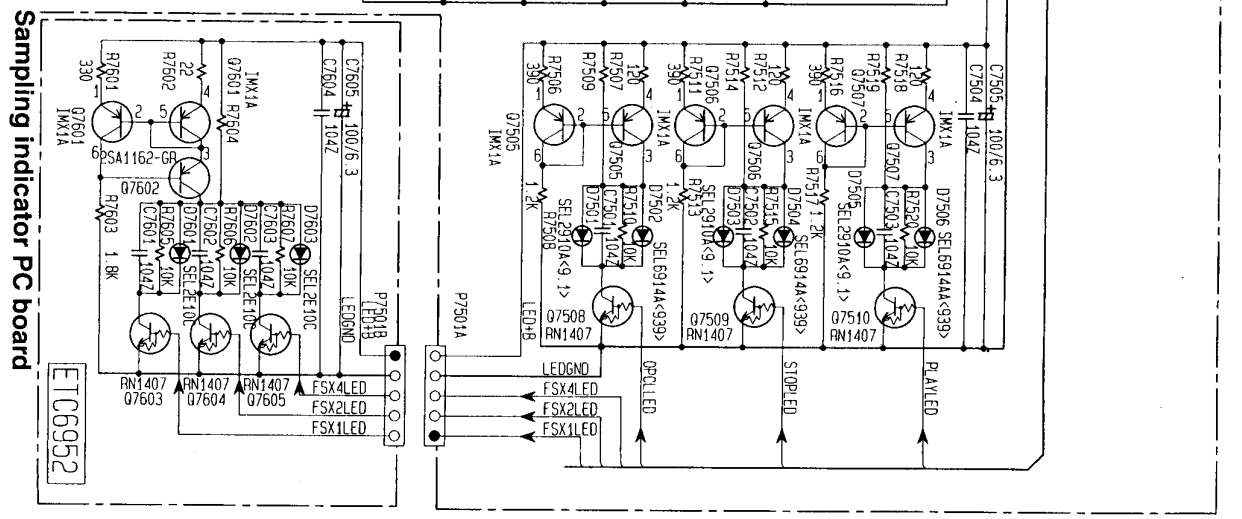
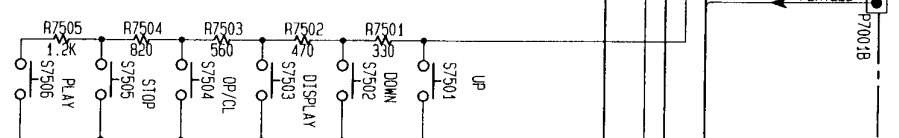
## Display circuit PC board

DIS-6940



DPS-9.1  
DPS-9.1

10 06-6946







# SCHEMATIC DIAGRAM 3

## Microprocessor PC board

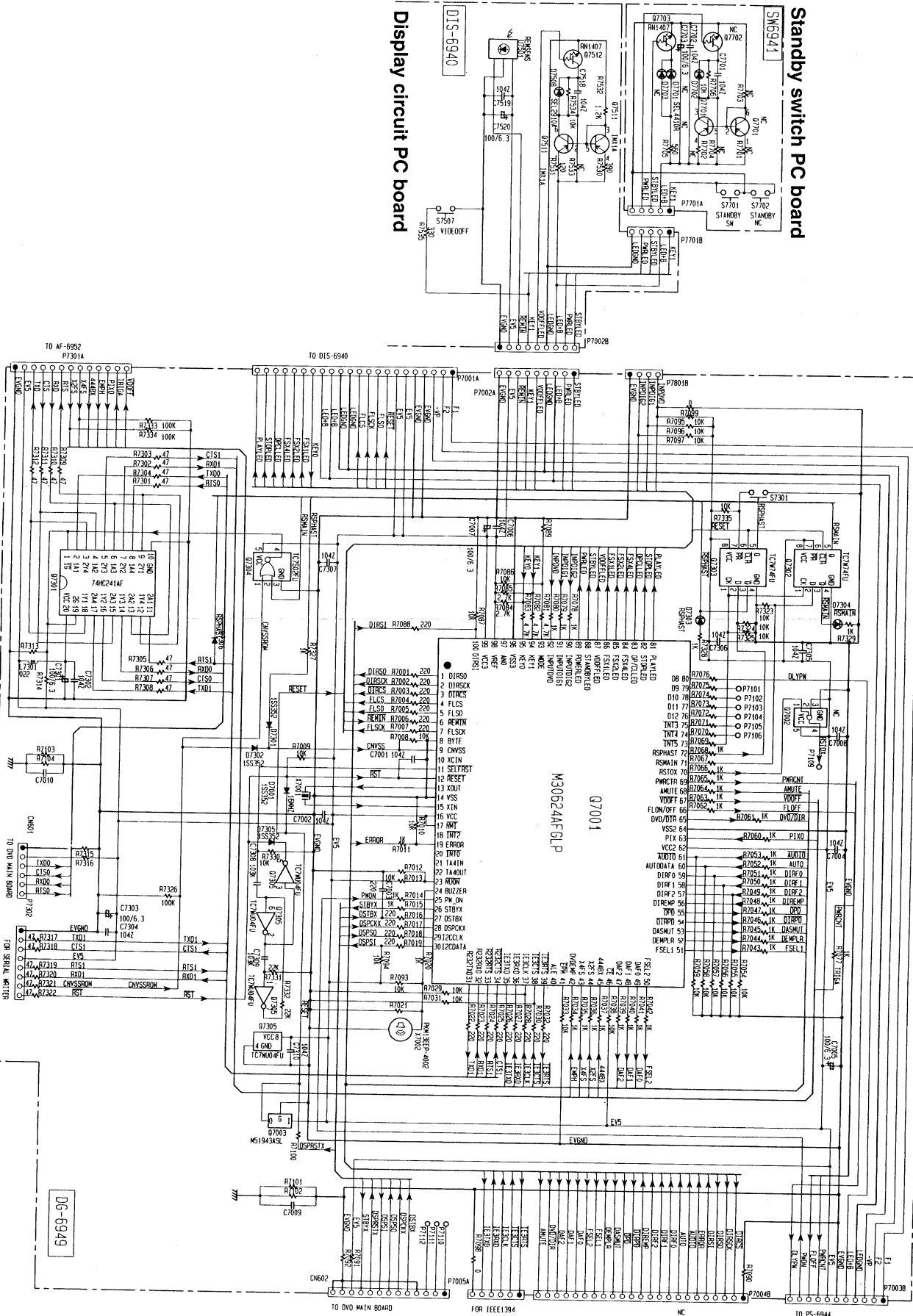
A B C D E F G H

### Standby switch PC board

SM6941

### Display circuit PC board

DIS-6940

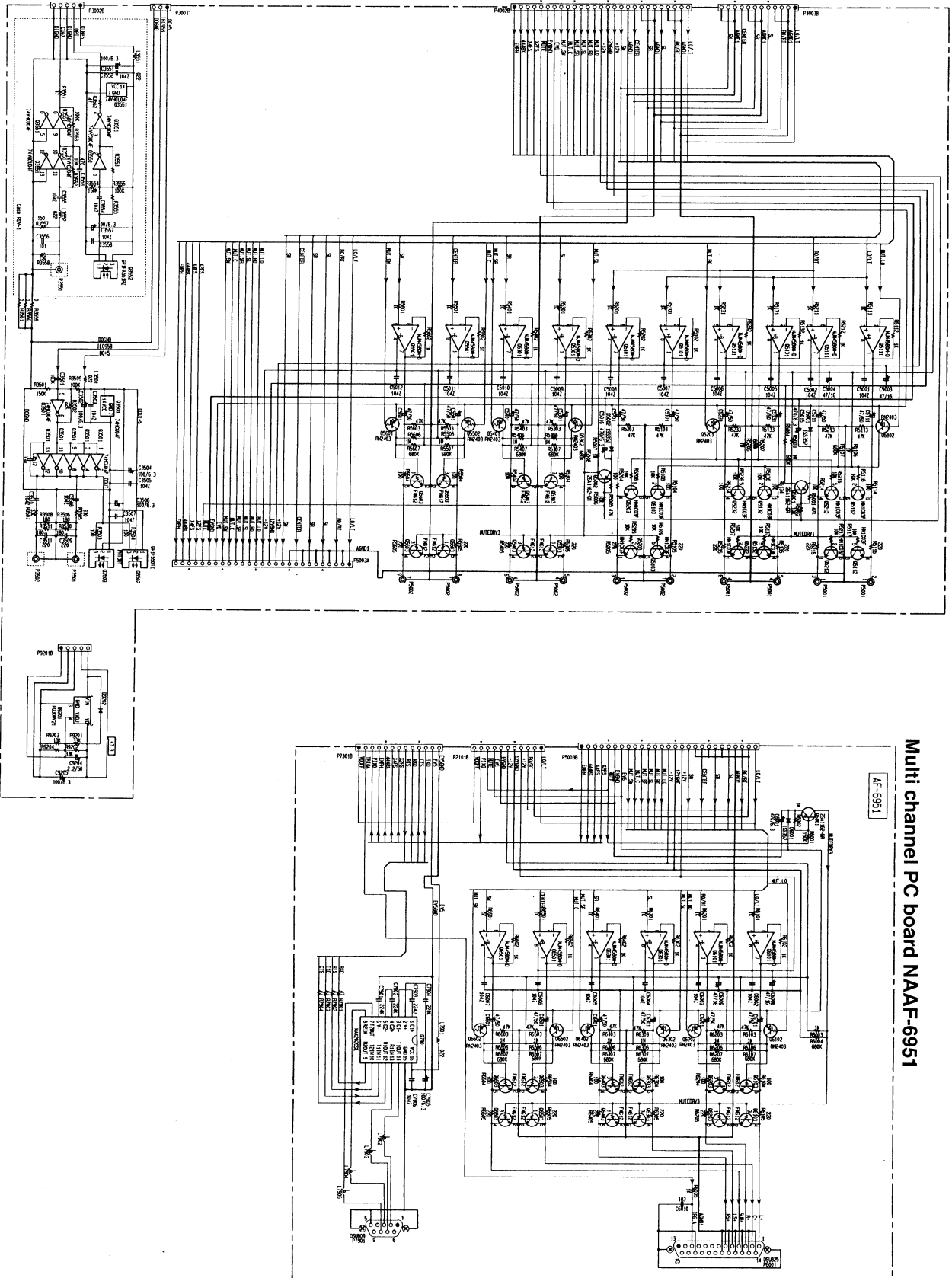


DPS-9.1  
DPS-9.1

# SCHEMATIC DIAGRAM 4

## Output terminal PC board

## Multi channel PC board NAF-6951



A B C D E F G H

1

2

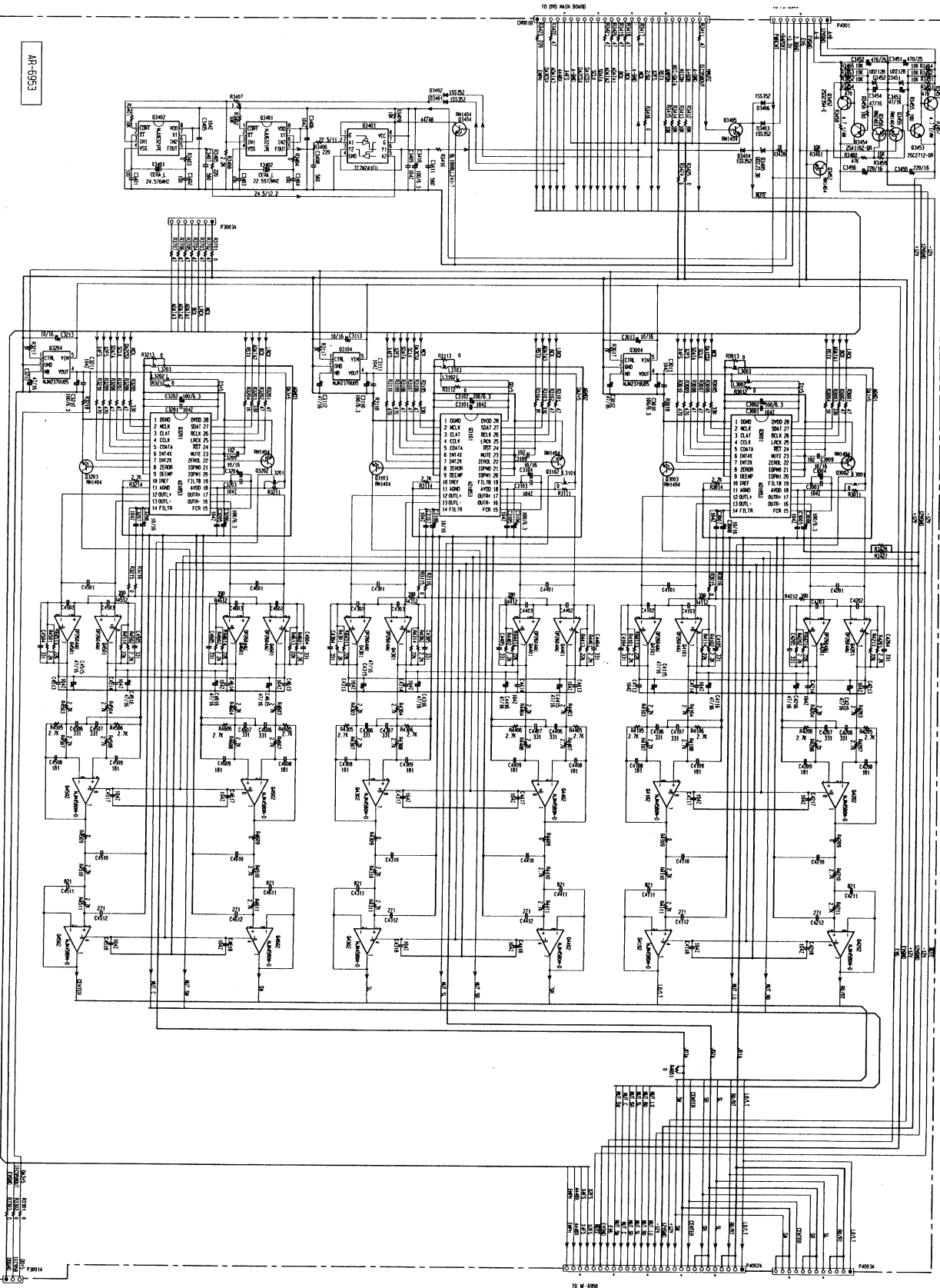
3

4

5

# SCHEMATIC DIAGRAM 5

## Main circuit PC board



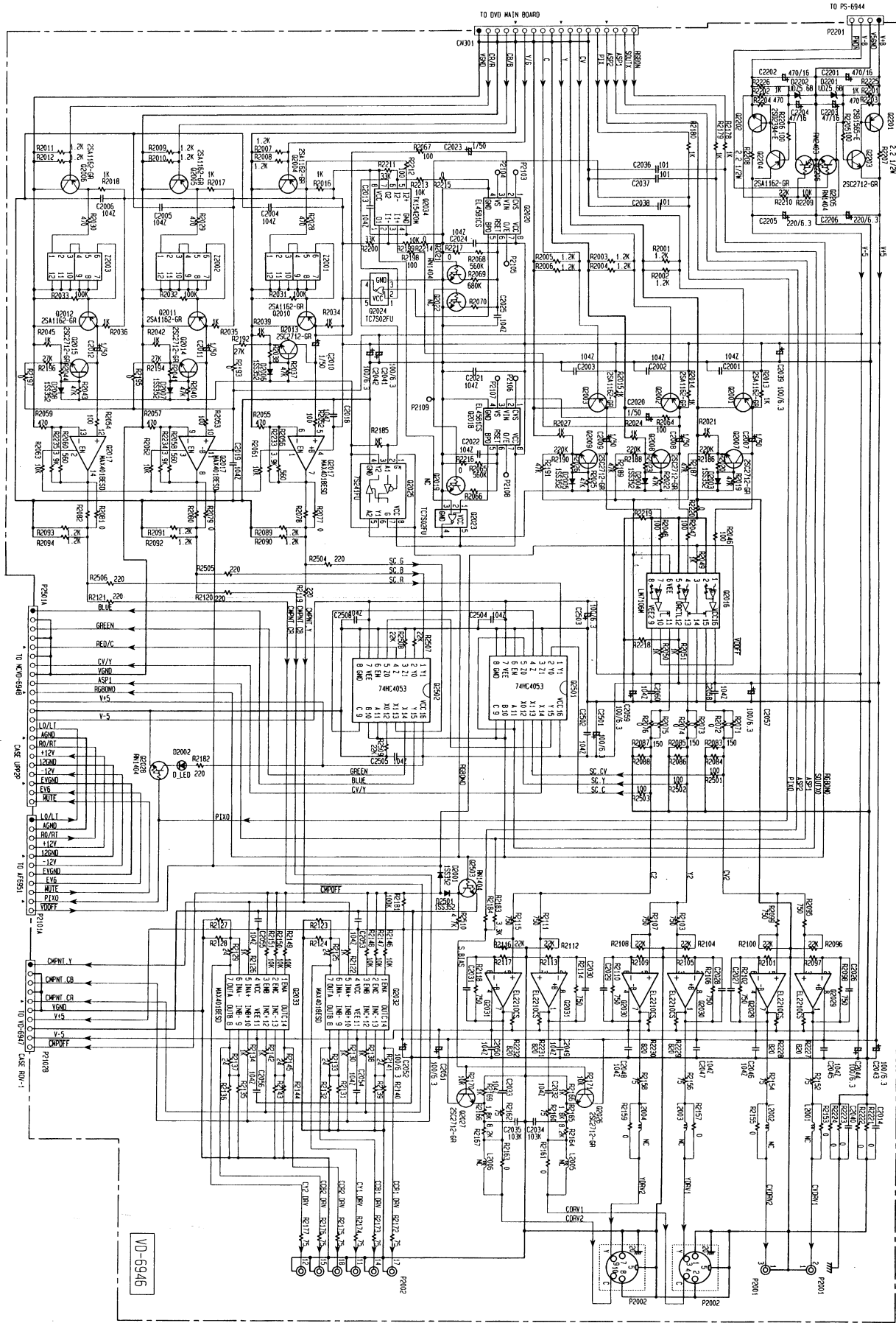
DPS-9.1  
DPS-9.1

# SCHEMATIC DIAGRAM 6

## Video circuit PC board

A B C D E F G H

DPS-9.1  
DPS-9.1

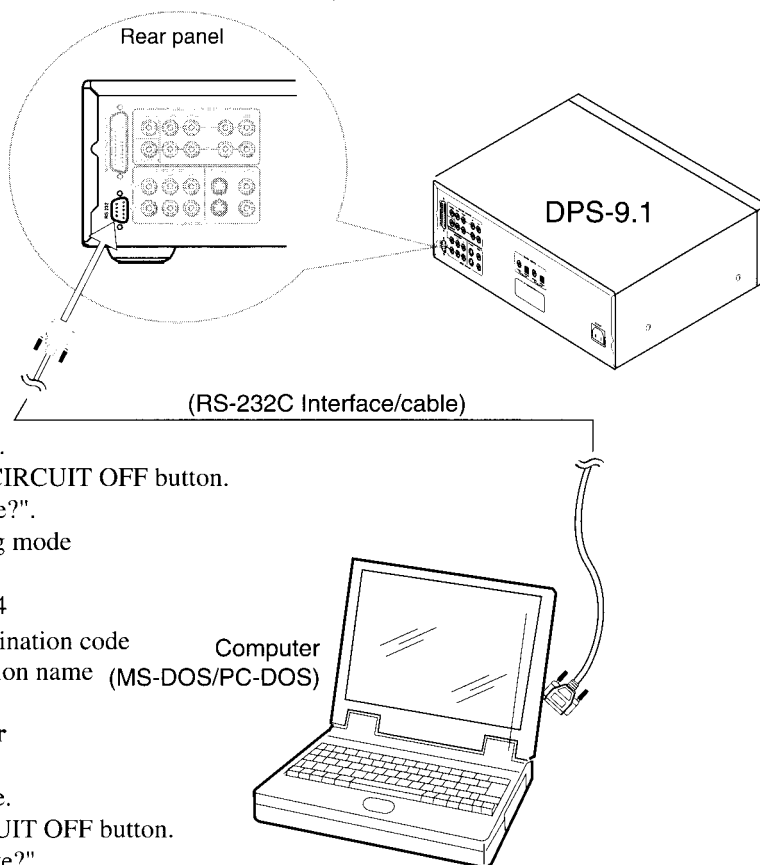


VD-6946

# UPGRADED FIRMWARE

1. When replaced the ROM ICs, it is necessary to write the data into the IC615. (Firmware)
2. When the firmware is upgraded, rewriting the new firmware into IC615 may be requested for servicing.
3. Connect a computer to the jack (RC-232) on the rear panel of the unit.
4. Writing operation.

## Connection



### 1. Writing the upgraded firmware

1-1. Setting the computer as shown as Fig.-1.

Turn POWER switch to ON to set the standby mode.

1-2. Press and hold down DISPLAY and press VIDEO CIRCUIT OFF button.

1-3. It can be displayed on the FL display as "Main Write?".

1-4. Press the STANDBY/ON button. -----Set the writing mode

1-5. Writing operation by the computer.

Program: FLASH99.EXE File: JA \*\*\* OS.O24

↑ Destination code  
↑ Version name (MS-DOS/PC-DOS)

1-6. Power off the unit.

### 2. Writing the E<sup>2</sup>PROM-data of main microprocessor

2-1. Setting the computer as shown as Fig.-1 above.

Turn POWER switch to ON to set the standby mode.

2-2. Press and hold down DISPLAY and VIDEO CIRCUIT OFF button.

2-3. It can be displayed on the FL display as "Main Write?".

2-4. Press the STANDBY/ON button. -----Set the writing mode

2-5. Writing operation by the computer.

Program: com99.EXE File: s939r.txt

↑ Destination code

2-6. Power off the unit.

Fig.1 : Cable connection of the computer to DPS-9.1

### 3. Confirm the FL display

3-1. Turn POWER switch to ON to set the standby mode.

3-2. Press and hold down DISPLAY and VIDEO CIRCUIT OFF button at no disc condition.

3-3. Confirm the version of firmware and the version of sub microprocessor.

Confirm that the display on the monitor TV is sa follows.

Item	UD
ROM Version	
Region	I
OSD	Eng/Fre/Spa
VCD	On
BUZZER	On
A.3D	Off
RANDOM	On
KARA	Off
DTS	On
VOCAL	Setup
DIMMER	3Type
V.3D	On
V-FMT	NTSC
JOG	Off
MPEG-A	On

#### 4. Factory setting confirmation

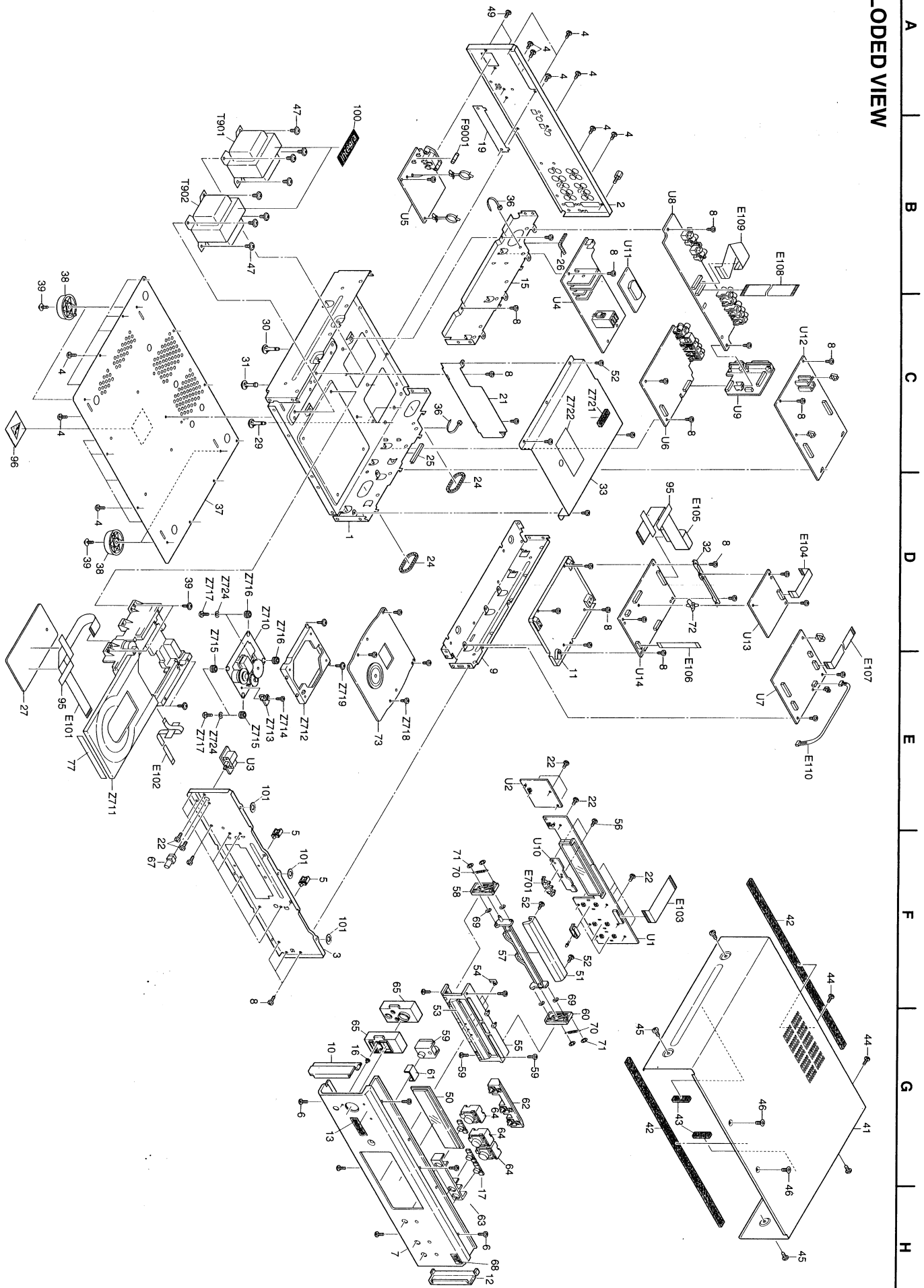
- 4-1. Turn power switch to ON to set the standby mode at no disc condition.
- 4-2. Press and hold down DISPLAY and STANDBY button.
- 4-3. Turn POWER to OFF, and pull out the power cord.
- 4-4. Confirm that display on the monitor TV is as follow.

		D
Picture	TV/SHARP	4 :3 LB
	BLACKER THAN BLACK	OFF
	Progressive 4 : 3 out	FULL
	Progressive Conversion	AUTO
AUDIO	AUDIO OUT SELECT	Bitsream
Language	On-screen/Disc	Eng
	AUDIO	Eng
	Subtitle	-
Display	On-Screen display	ON
	BACK GRAND	GRAY
	Screen Saver	ON
Operation	PAUSE/STILL	AUTO
	PARENTAL LOCK	Off
	Remote Confirmation	On
	TITLE/GROUP STOP	Off
	PBC	On
	PRIORITY CONTENTS	DVD-AUDIO

**NOTE:**

1. The firmware and setup data are not available as service parts.
2. For more information, consult ONKYO authorized service station in your area.

# EXPLODED VIEW



# EXPLODED VIEW PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	27100388	Chassis	61	28325841	Knob ass'y GUIDE VIDEO
2	27122769	Rear panel	62	28325848	Knob FF
3	27130852A	Front bracket	63	28325844	Knob ass'y GUIDE PLAY
4	838430088	3TTB+8B(BC), Self-tapping screw	64	28325843	Knob PLAY
5	27190541	WS-1NS, Clamp	65	28325855	Knob ass'y GUIDE POWER
6	838430088	3TTB+8B(BC), Self-tapping screw	67	28325850	Knob POWER
7	27212249	Front panel ass'y	68	28135281	Badge DVD AUDIO
8	838130088	3TTB+8B, Self-tapping screw	69	27270425	Spacer
9	27130855	Bracket R	70	27180582	Spring DOOR
10	28125379	End cap L	71	891002	Stopper
11	27141768	Retainer, main	72	27190009	KGLS-4S, Holder
12	28125385	End cap R	73	27262661	Cloth tape
13	28135278	Badge	95	29110083	Plate mechanism
15	27130853	Bracket C	96	29360778	Label, flash
16	28198908	Facet	100	29362762	Label (INTEGRA)
19	28184772	Cover, Upgrade	101	27270203	Spacer
21	27141770	Retainer, heat sink	E110	2009990637	NSAS-12P0883, Socket AS
22	82143006	3P+6FN(BC), Pan head screw	E701	27191116	Holder SMP
24	28170070	Bushing	E101	2042233512	NCFC2-233512, Flexible flat cable
25	28170072	CE-012, Bushing	E102	2042082012	NCFC2-082012, Flexible flat cable
26	28170074	KG-016L, Bushing	E103	2047221012	NCFC7-221012, Flexible flat cable
27	27150454A	Shield plate FFC	E104	2045181012	NCFC5-181012, Flexible flat cable
29	27190524	KGLS-14RF, Holder	E105	2045262512	NCFC5-262512, Flexible flat cable
30	27190657	KGLS-18RF, Holder	E106	2045131512	NCFC5-131512, Flexible flat cable
31	27190802	KGPS-14RF, Holder	E107	2045131012	NCFC5-131012, Flexible flat cable
32	27141766	Retainer, main 2F	E108	2045271512	NCFC5-271512, Flexible flat cable
33	28184632-1B	Cover, mechanism	E109	△ 2045271512	NCFC5-271512, Flexible flat cable
35	28141421	Cushion, t=8, 10 x 30	F9001	△ 252158	1.6A-UL/T-237, Fuse
36	260208	Wire tie	T901	△ 2301488	NPT-1405D, Power transformer
37	27170333A	Bottom panel	T902	2301492	NPT-1406D, Power transformer
38	27175311A	Leg	U1	1H453540-3	NADIS-6940-3, Display circuit
39	831430088	3TTW+8B(BC), Self-tapping screw			PC board ass'y
41	28184790	Top cover	U2	1H453541-3	NASW-6941-3, Standby switch
42	28141437	Cushion			PC board ass'y
43	28141409A	Cushion	U3	1H453543-3	NASW-6943-3, Power switch
44	838430088	3TTB+8B(BC), Self-tapping screw			PC board ass'y
45	838440089	4TTB+8C(BC), Self-tapping screw	U4	1H453544-3	NAPS-6944-3, Power supply
46	801597A	Special screw			circuit PC board ass'y
47	830440089	4TTC+8C(BC), Self-tapping screw	U5	1H453545-3	NAPS-6945-3, Primary circuit
50	28191901	Clear plate			PC board ass'y
51	28148460	Door	U6	1H453546-3	NAVD-6946-3, Video circuit
52	838426088	2.6TTB+8B(BC), Self-tapping screw			PC board ass'y
53	27262663	Plate Door	U7	1H453549-3	NADG-6949-3, Microprocessor
54	28198910	Facet SMP			PC board ass'y
55	27130845	Bracket, mechanism	U8	1H453550-3	NAAF-6950-3, Output terminal
56	838426088	2.6TTB+8B(BC), Self-tapping screw			PC board ass'y
57	27220063	Slider	U9	1H453551-3	NAAF-6951-3, Multi channel output
58	28125388	End cap L			terminal PC board ass'y
59	28325842	Knob FF	U10	1H453552-3	NAETC-6952-3, Sampling indicator
60	28125389	End cap R			PC board ass'y
			U12	1H453553-2	NAAR-6953-2, Main circuit
					PC board ass'y



REF.NO.	PART NO.	DESCRIPTION
U13	24150017	SD-31B1, Mechanism PC board ass'y 1 (DVD)
U14	24150018	SD-32B1, Mechanism PC board ass'y 2 (SUB)
Z710	24801006	SD-9200K2-ZX,DVD mechanism
Z711	24801009	MGD-32,Mechanism, loader
Z712	24802047	Sub-chassis, frame
Z713	24840143	Bracket T
Z714	801594	Special screw
Z715	24818042	Insulator F
Z716	24818043	Insulator R
Z717	801595	Special screw C
Z718	801593	Special screw A
Z719	801596	Special screw D
Z721	28140803	Cushion
Z722	29362648	Label DVD2
Z724	24834041	Washer C

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

# OUTPUT SOUND CONVERSION TABLE

## Audio Output from the DIGITAL OUTPUT and ANALOG OUTPUT Jacks Corresponding to Disc Formats and the DVD Player Settings

Disc	Sound System		Audio Out Select setting and the output jacks							
			Bitstream		Analog 6Ch		Analog 2Ch		PCM	
			DIGITAL OUTPUT	ANALOG OUTPUT	DIGITAL OUTPUT	ANALOG OUTPUT	DIGITAL OUTPUT	ANALOG OUTPUT	DIGITAL OUTPUT	ANALOG OUTPUT
DVD Video	DOLBY DIGITAL		Bitstream	48 kHz/20 bit	ó	48 kHz/20 bit	Bitstream	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit
	Linear PCM	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit
		48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit
		48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit
		96 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	—	96 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit
		96 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	—	96 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit
		96 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	48 kHz/16 bit	48 kHz/20 bit	—	96 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit
DTS		Bitstream	—	Bitstream	—	Bitstream	—	—	—	
MPEG2*1		Bitstream	48 kHz/16 bit	—	48 kHz/16 bit	Bitstream	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	
Video CD	MPEG1		44.1 kHz/16 bit	44.1 kHz/16 bit	—	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit
CD	Linear PCM 44.1 kHz/16 bit		44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit
	DTS		Bitstream	(Noise is output)	Bitstream	(Noise is output)	Bitstream	(Noise is output)	Bitstream	(Noise is output)
DVD Audio	Linear PCM or packed PCM	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	—	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit
		48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	—	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit
		44.1 kHz/20 bit	44.1 kHz/16 bit	44.1 kHz/20 bit	—	44.1 kHz/20 bit	44.1 kHz/16 bit	44.1 kHz/20 bit	44.1 kHz/16 bit	44.1 kHz/20 bit
		48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	—	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit
		44.1 kHz/24 bit	44.1 kHz/16 bit	44.1 kHz/24 bit	—	44.1 kHz/24 bit	44.1 kHz/16 bit	44.1 kHz/24 bit	44.1 kHz/16 bit	44.1 kHz/24 bit
		48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	—	48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit	48 kHz/16 bit	48 kHz/24 bit
		88.2 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit	—	88.2 kHz/16 bit	—	88.2 kHz/16 bit	44.1 kHz/16 bit	44.1 kHz/16 bit
		96 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit	—	96 kHz/16 bit	—	96 kHz/16 bit	48 kHz/16 bit	48 kHz/16 bit
		88.2 kHz/20 bit	44.1 kHz/16 bit	44.1 kHz/20 bit	—	88.2 kHz/20 bit	—	88.2 kHz/20 bit	44.1 kHz/16 bit	44.1 kHz/20 bit
		96 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit	—	96 kHz/20 bit	—	96 kHz/20 bit	48 kHz/16 bit	48 kHz/20 bit
		88.2 kHz/24 bit	44.1 kHz/16 bit	44.1 kHz/20 bit	—	88.2 kHz/24 bit	—	88.2 kHz/24 bit	44.1 kHz/16 bit	44.1 kHz/20 bit
		96 kHz/24 bit	48 kHz/16 bit	48 kHz/20 bit	—	96 kHz/24 bit	—	96 kHz/24 bit	48 kHz/16 bit	48 kHz/20 bit
		*2 176.4 kHz/16 bit	—	176.4 kHz/16 bit	—	176.4 kHz/16 bit	—	176.4 kHz/16 bit	—	176.4 kHz/16 bit
		*2 192 kHz/16 bit	—	192 kHz/16 bit	—	192 kHz/16 bit	—	192 kHz/16 bit	—	192 kHz/16 bit
		*2 176.4 kHz/20 bit	—	176.4 kHz/20 bit	—	176.4 kHz/20 bit	—	176.4 kHz/20 bit	—	176.4 kHz/20 bit
		*2 192 kHz/20 bit	—	192 kHz/20 bit	—	192 kHz/20 bit	—	192 kHz/20 bit	—	192 kHz/20 bit
*2 176.4 kHz/24 bit	—	176.4 kHz/24 bit	—	176.4 kHz/24 bit	—	176.4 kHz/24 bit	—	176.4 kHz/24 bit		
*2 192 kHz/24 bit	—	192 kHz/24 bit	—	192 kHz/24 bit	—	192 kHz/24 bit	—	192 kHz/24 bit		

\*1 Not applicable for USA and Canadian models

\*2 2Ch Audio Output

—: No signal

### Notes

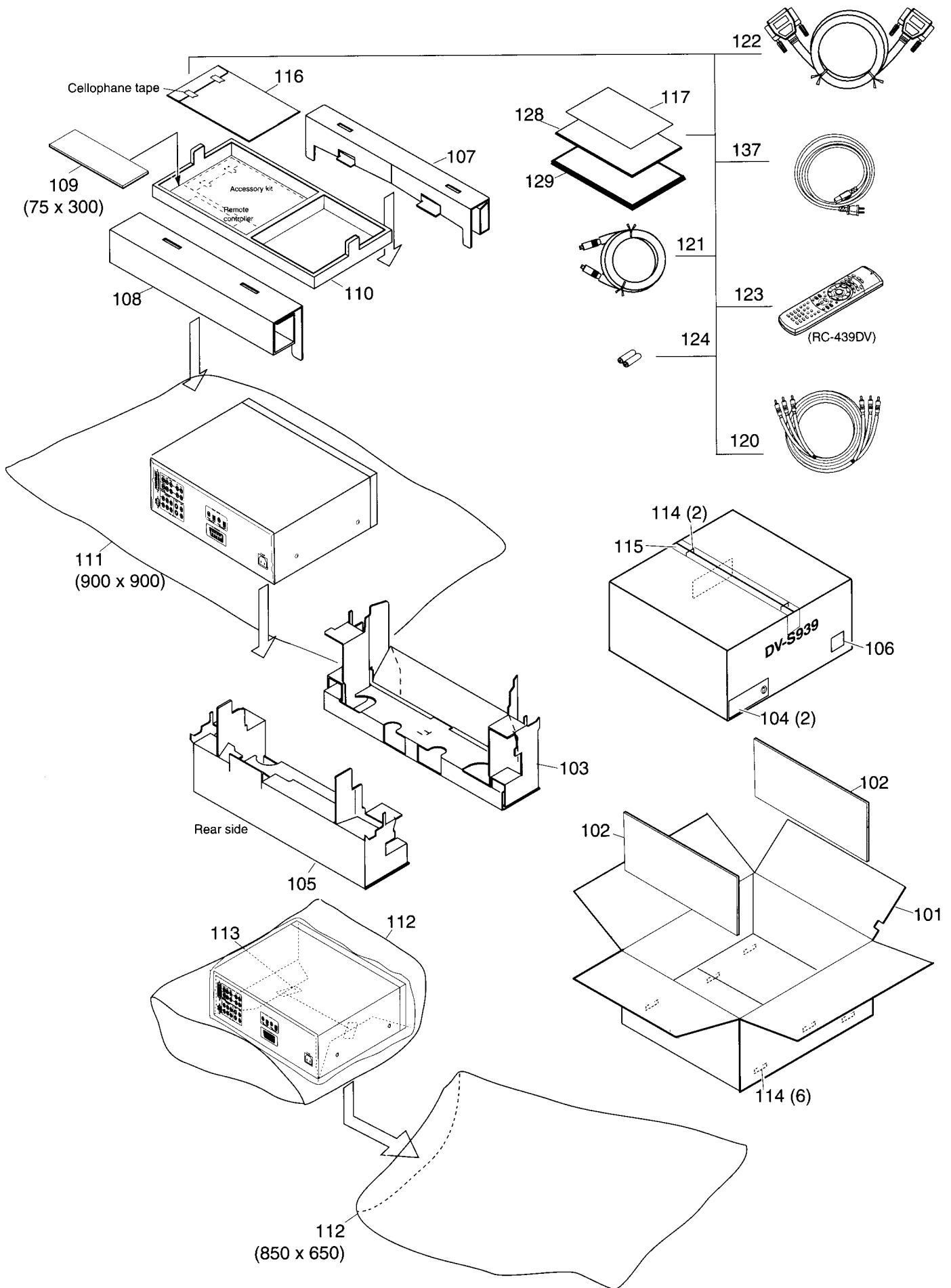
- When using only two speakers for playback and play a multi channel disc that prohibits stereo downmixing, the sound from the right and left speakers will be the right and left channels of the multi channel sound track as recorded on the disc. With these types of discs, it is often possible that a 2-channel stereo sound track may also be recorded. Change the sound track to hear the audio correctly. (For details, refer to the documentation supplied with the disc.)
- During playback of discs recorded with sampling rates higher than 48 kHz (for example 96 kHz), the 48/44.1 sampling rate indicator lights when Audio Out Select is set to either Bitstream or PCM.
- When Audio Out Select is set to Analog 6Ch, two channel audio sources are output with DOLBY PRO LOGIC surround processing (except for DVD-Audio).

# PACKING PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
101	29053678	Carton box	114	282321	Staple
102	29095893	Sheet	115	29110141	PP tape
103	29091963A	Pad, front, bottom	116	29100097-1A	Poly bag 350 x 250
104	29362036	Label EX	117	29365080B	Warranty card
105	29091964A	Pad, rear, bottom	128	29095865	Sheet INTEGRA
106	29362717	Label UPC	120	2010388	Video connection cable
107	29091965A	Pad, front, top	121	2010389	S-video cable
108	29091966A	Pad, rear, top	122	2010390	DB-25 cable
109	29095894	Sheet 75 x 300	123	24140439	RC-439DV, Remote controller
110	29105207A	Case	124	3010054	UM-3, Battery
111	29095880	Sheet 0.515 x 900 x 900	129	29355347	Instruction sheet THX
112	29100034-1A	Poly bag 850 x 650	130	29343004A	Instruction manual E
113	29110149	Cellophane tape	137	△ 253301HIT	AS-UC-2, Power cord

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

# PACKING VIEW



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