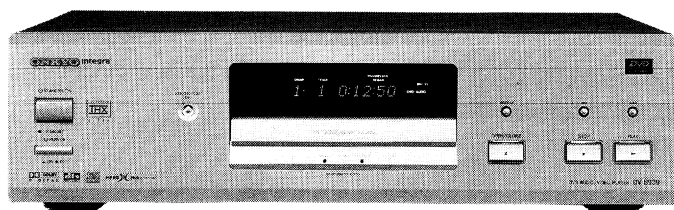


ONKYO® SERVICE MANUAL

DVD AUDIO/VIDEO Player


DV-S939



Black, Golden and Silver models

| | |
|-------------|----------------------------|
| BUD | 120V AC, 60Hz |
| BUP,GPS,SUP | 230-240V AC, 50Hz |
| GUGT | 220V AC, 50Hz |
| GUWT | 120/220 - 230V AC, 50/60Hz |

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 NUMBER APPEAR AS SHOWN IN THIS MANUAL.

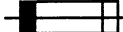
MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

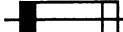
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SERVICE PROCEDURE

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 dernier est indique la qu le present symbol est apposse.

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------|--------------------------------|
| F9001 | 252158 | 1.6A-UL/T-237, Fuse <D> |
| | 252073 | 1.6A-SE-EAW, FUSE <P/PS/WT/GT> |

NOTE : <D> : 120 V 60Hz model only
 <P, PS> : 230 V 50Hz model only
 <WT> : 120/220-230 V 50/60Hz model only
 <GT> : 220 V 50Hz model only


2. Safety-check out

(Only U.S.A. model)

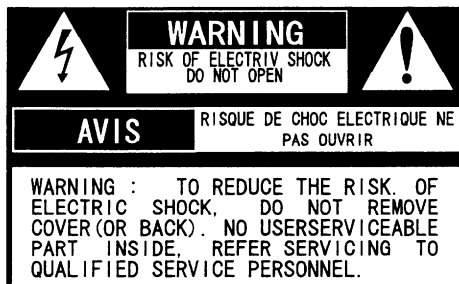
After correcting the original service problem perform the following safety check before releasing the set to the customer Connect the insulating-resistance tester between the plug of power supply cord and terminal GND on the back panel. Specifications: More than 10Mohm at 500V

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.

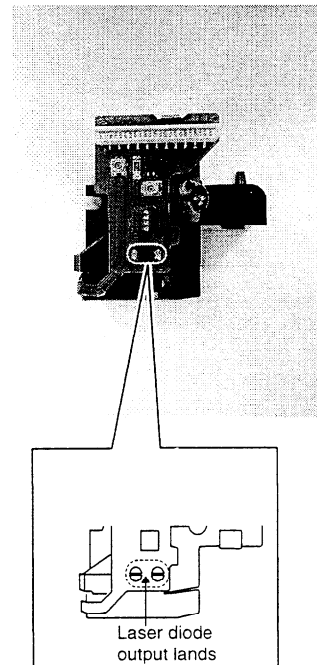
CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

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 | AC120V, 60Hz <UD> |
| | AC220-230V, 50/60Hz <GT> |
| | AC120/220-230V, 60/50Hz <WT> |
| | AC230-240V, 50Hz <UP/PS> |
| Power consumption | 45W <UD> |
| | 40W <UP/PS/GT/WT> |
| Weight | 11.0 kg, 24.3 lbs |
| External dimensions | 435 x 122 x 374 mm (W/H/D), 17 1/8" x 4 13/16" x 14 3/4" (W/H/D) |
| Signal system | NTSC/PAL* |
| 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 ± 0.001 % (W.PEAK)) |
| Operating conditions | Temperature: 5°C to 35°C (41°F to 95°F), Operation status: Horizontal |

* Not applicable for USA and Canadian models

■ Outputs

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

■ Supplied Accessories

| | |
|------------------------------|---|
| Audio/video connection cable | 1 |
| Remote controller (RC-438DV) | 1 |
| Batteries (size AA/UM-3) | 2 |
| Power cord | 1 |
| S-video cable | 1 |
| DB-25 cable | 1 |
| CV plug <WT> only | 1 |

Specifications and features are subject to change without notice.

NOTE:

<UD> : 120V model only

<UP> : European model only

<GT> : 220V model only

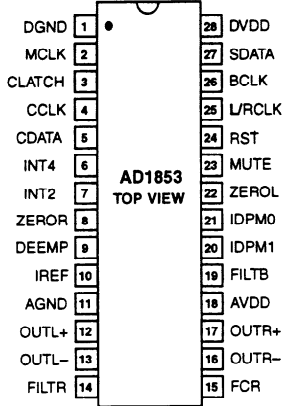
<WT> : 120/220-230V model only

<PS> : 230-240V model only

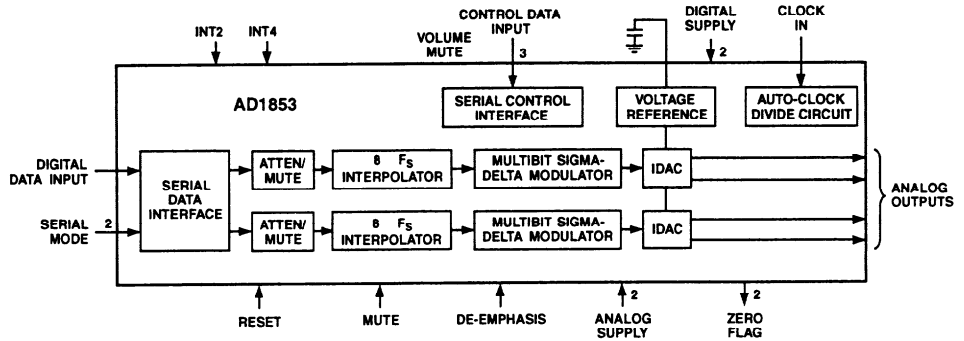
IC BLOCK DIAGRAM AND DESCRIPTIONS

AD1853
(Stereo 24-Bit, 192kHz, Multibit DAC)

PIN CONFIGURATION



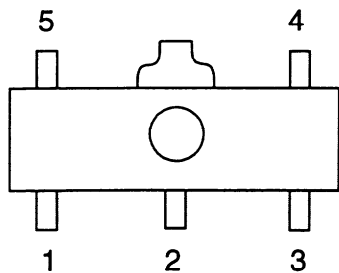
FUNCTIONAL BLOCK DIAGRAM



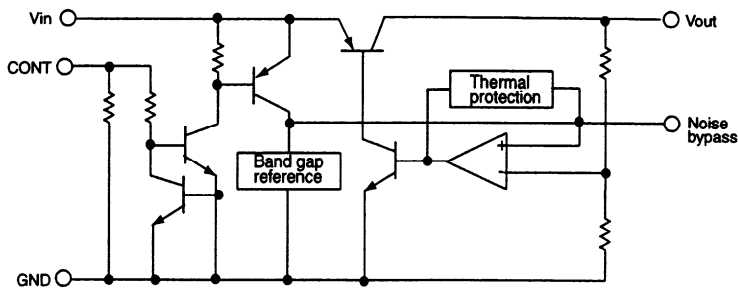
PIN FUNCTION DESCRIPTIONS

| Pin | Input/Output | Pin Name | Description |
|-----|--------------|----------|---|
| 1 | I | DGND | Digital Ground. |
| 2 | I | MCLK | Master Clock Input. |
| 3 | I | CLATCH | Latch input for control data. This input is rising-edge sensitive. |
| 4 | I | CCLK | Control clock input for control data. Control input data must be valid on the rising edge of CCLK. CCLK may be continuous or gated. |
| 5 | I | CDATA | Serial control input, MSB first, containing 16 bits of unsigned data. Used for specifying control information and channel-specific attenuation. |
| 6 | I | INT4 × | Assert HI to select interpolation ratio of 4 ×, for use with double-speed inputs (88 kHz or 96 kHz). |
| 7 | I | INT2 × | Assert HI to select interpolation ratio of 2 ×, for quad-speed inputs (176 kHz or 192 kHz). Assert LO to select 8 × interpolation ratio. |
| 8 | O | ZEROR | Right Channel Zero Flag Output. |
| 9 | I | DEEMP | De-Emphasis. Digital de-emphasis is enabled when this input signal is HI. |
| 10 | I | IREF | Connection point for external bias resistor. |
| 11 | I | AGND | Analog Ground. |
| 12 | O | OUTL+ | Left Channel Positive line level analog output. |
| 13 | O | OUTL- | Left Channel Negative line level analog output. |
| 14 | O | FILTR | Voltage Reference Filter Capacitor Connection. |
| 15 | I | FCR | Filter cap return pin for cap connected to FILTB |
| 16 | O | OUTR- | Right Channel Negative line level analog output. |
| 17 | O | OUTR+ | Right Channel Positive line level analog output. |
| 18 | I | AVDD | Analog Power Supply. Connect to analog +5 V supply. |
| 19 | O | FILTB | Filter Capacitor connection, connect 10 μF capacitor to FCR (Pin 15). |
| 20 | I | IDPM1 | Input serial data port mode control one. With IDPM0, defines one of four serial modes. |
| 21 | I | IDPM0 | Input serial data port mode control zero. With IDPM1, defines one of four serial modes. |
| 22 | O | ZEROL | Left Channel Zero Flag output. This pin goes HI when Left Channel has no signal input for more than 1024 LR Clock Cycles. |
| 23 | I | MUTE | Mute. |
| 24 | I | RST | Reset. |
| 25 | I | L/ RCLK | Left/ Right clock input for input data. |
| 26 | I | BCLK | Bit clock input for input data. |
| 27 | I | SDATA | Serial input, MSB first, containing two channels of 16/18/20/24 bit two-complement data. |
| 28 | I | DVDD | Power supply |

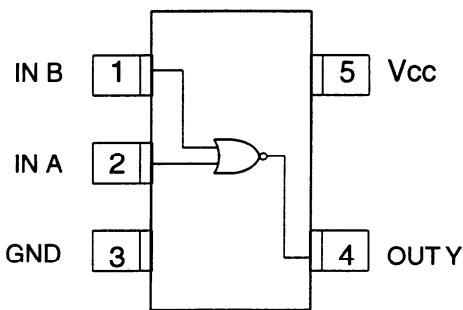
NJM2370
(Regulated power supply)



- 1. Control
- 2. GND
- 3. Noise bypass
- 4. Vout
- 5. Vin



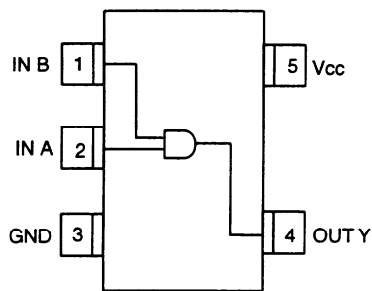
TC7S02FU
(2 input NOR gate)



Truth table

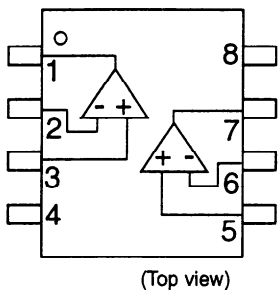
| A | B | Y |
|---|---|---|
| L | L | H |
| L | H | L |
| H | L | L |
| H | H | L |

TC7S08FU
(2 input AND gate)



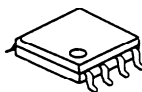
| A | B | Y |
|---|---|---|
| L | L | L |
| L | H | L |
| H | L | L |
| H | H | H |

NJM4580M-D
(2-ch Ope. amp.)

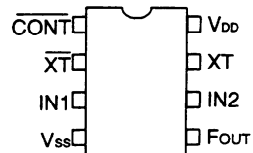


Pin description

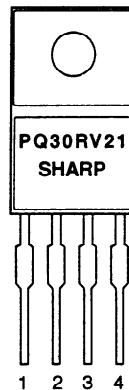
- 1. A OUTPUT
- 2. A -INPUT
- 3. A +INPUT
- 4. V-
- 5. B +INPUT
- 6. B -INPUT
- 7. B OUTPUT
- 8. V+



NJU6321PE
(Quartz oscillator)

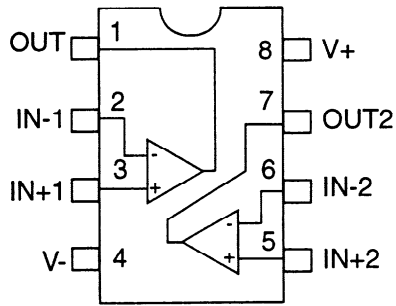


PQ30RV21
(Regulated supply)

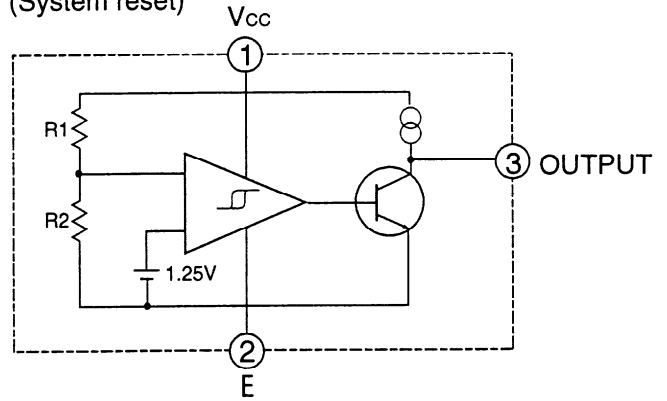


- 1: Input
- 2: Output
- 3: GND
- 4: Variable adjust

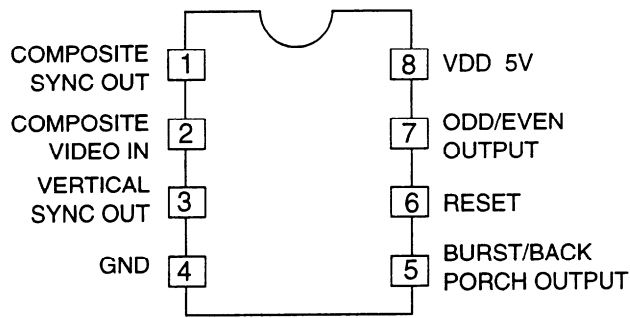
EL2210CE
(Dual Op. amp.)



M51943A
(System reset)



EL4581C
(Sync Separator, 50% Slice, S-H, Filter)

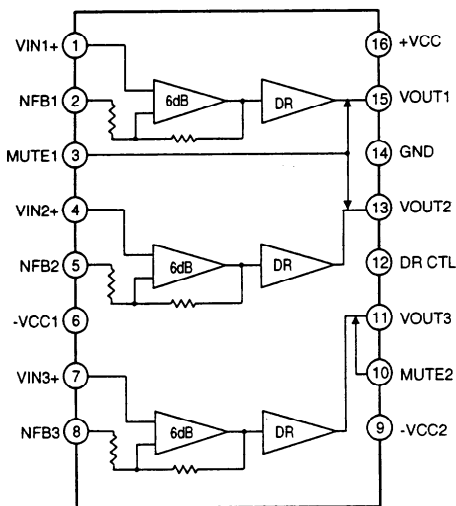


Top View

Pin Descriptions

| Pin No. | Pin Name | Function |
|---------|-------------------------|--|
| 1 | Composite Sync Out | Composite sync pulse output. |
| 2 | Composite Video in | AC coupled composite video input. |
| 3 | Vertical Sync Out | Vertical sync pulse output. |
| 4 | GND | Supply ground. |
| 5 | Burst/Back Porch Output | Burst/Back porch output. |
| 6 | RESET | An external resistor to ground sets all internal timing. |
| 7 | Odd/Even Output | Odd/Even field output. |
| 8 | V _{DD} 5V | Positive supply. (5V) |

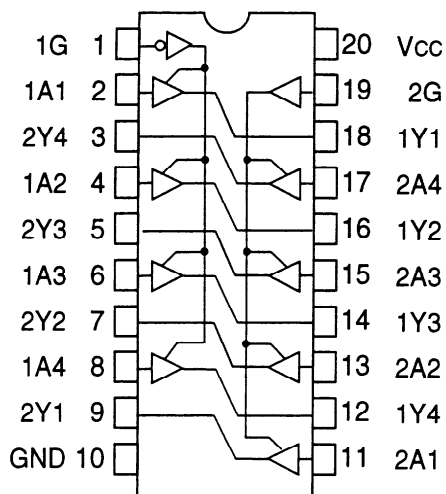
LA7106MFP
(3-ch Video amp.)



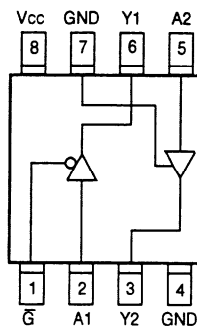
Truth Table

| | Pins 3, 10 | Pins 12 |
|---|------------|----------------|
| H | Thru | 150 ohm Driver |
| L | Mute | 75 ohm Drive |

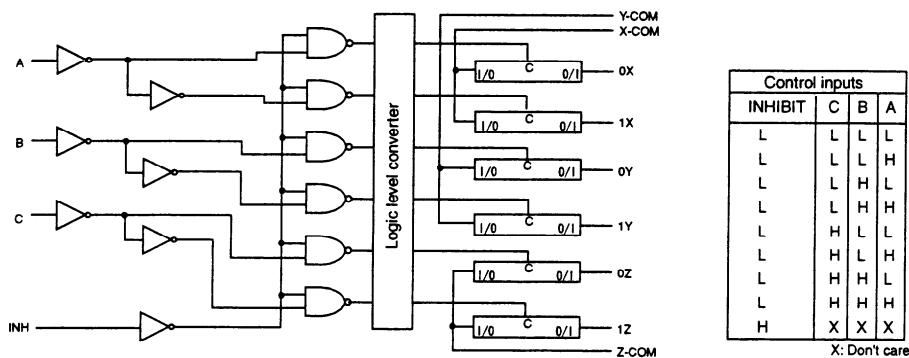
TC74HC241AF
(Octal bus buffer)



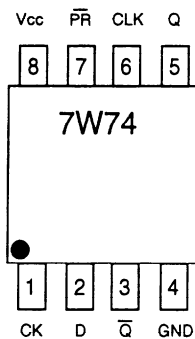
TC7W241FU
(Non-Inverted, 3-State outputs)



TC74HC4053FP
(Triple 2-channel analog multiplexer/demultiplexer)



TC7W74FU
(D-type flip flop)

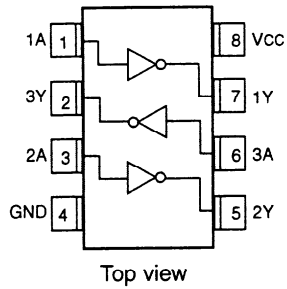


Truth table

| INPUTS | | | | OUTPUTS | | FUNCTION |
|--------|----|---|----|----------------|-----------------|-----------|
| CLR | PR | D | CK | Q | Q̄ | |
| L | H | x | x | L | H | CLEAR |
| H | L | x | x | H | L | PRESET |
| L | L | x | x | H | H | - |
| H | H | L | ↓ | L | H | - |
| H | H | H | ↓ | H | L | - |
| H | H | x | ⌊ | Q _n | Q̄ _n | NO CHANGE |

x : Don't care

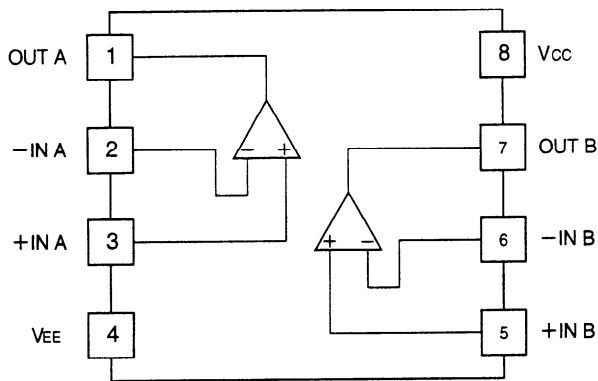
TC7W04FU
(3-inverter)



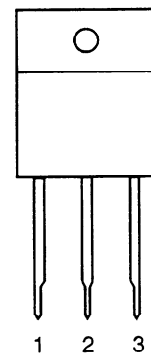
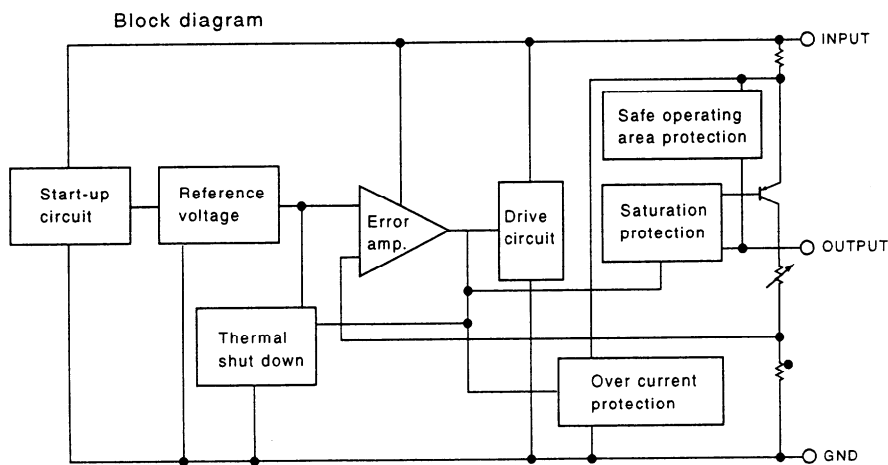
Truth table

| A | Y |
|---|---|
| L | H |
| H | L |

TK15420M
(Video amp.)

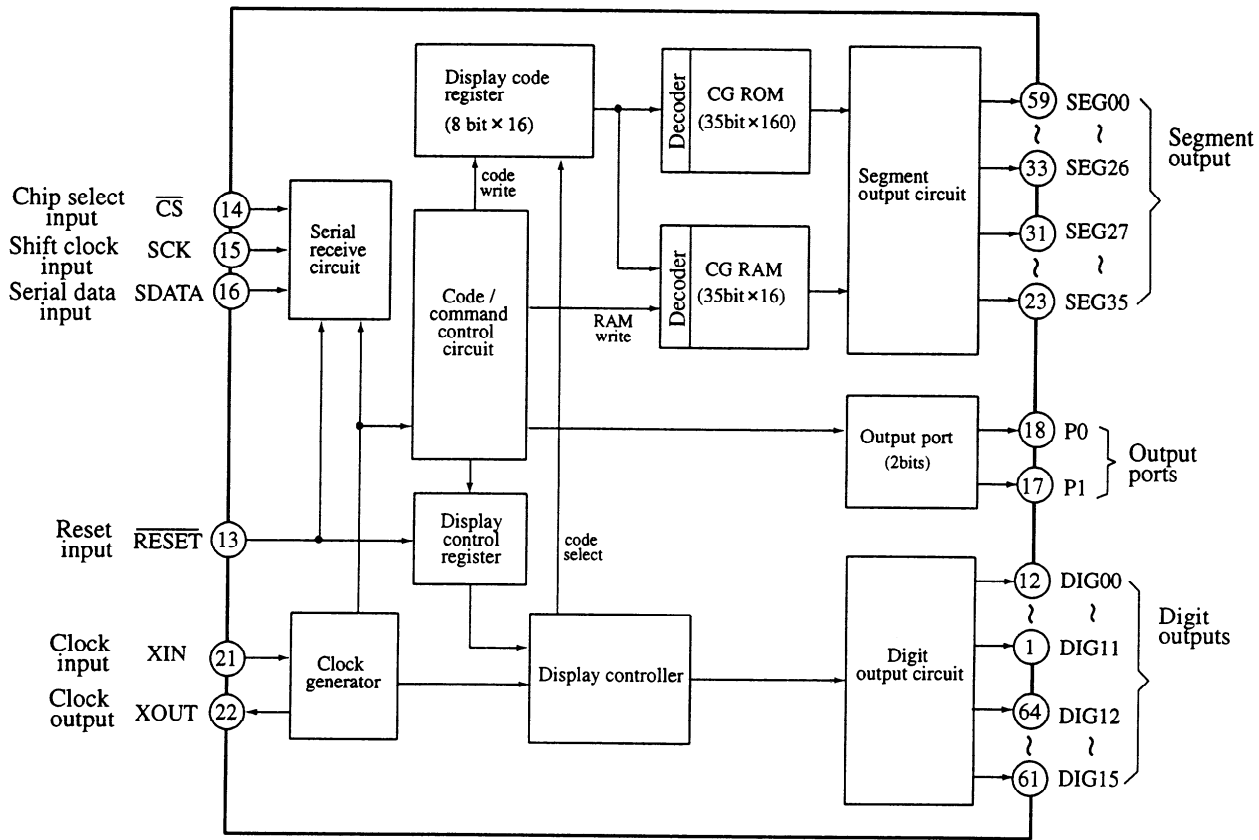


uPC29M05HF
(3-Terminal regulator)



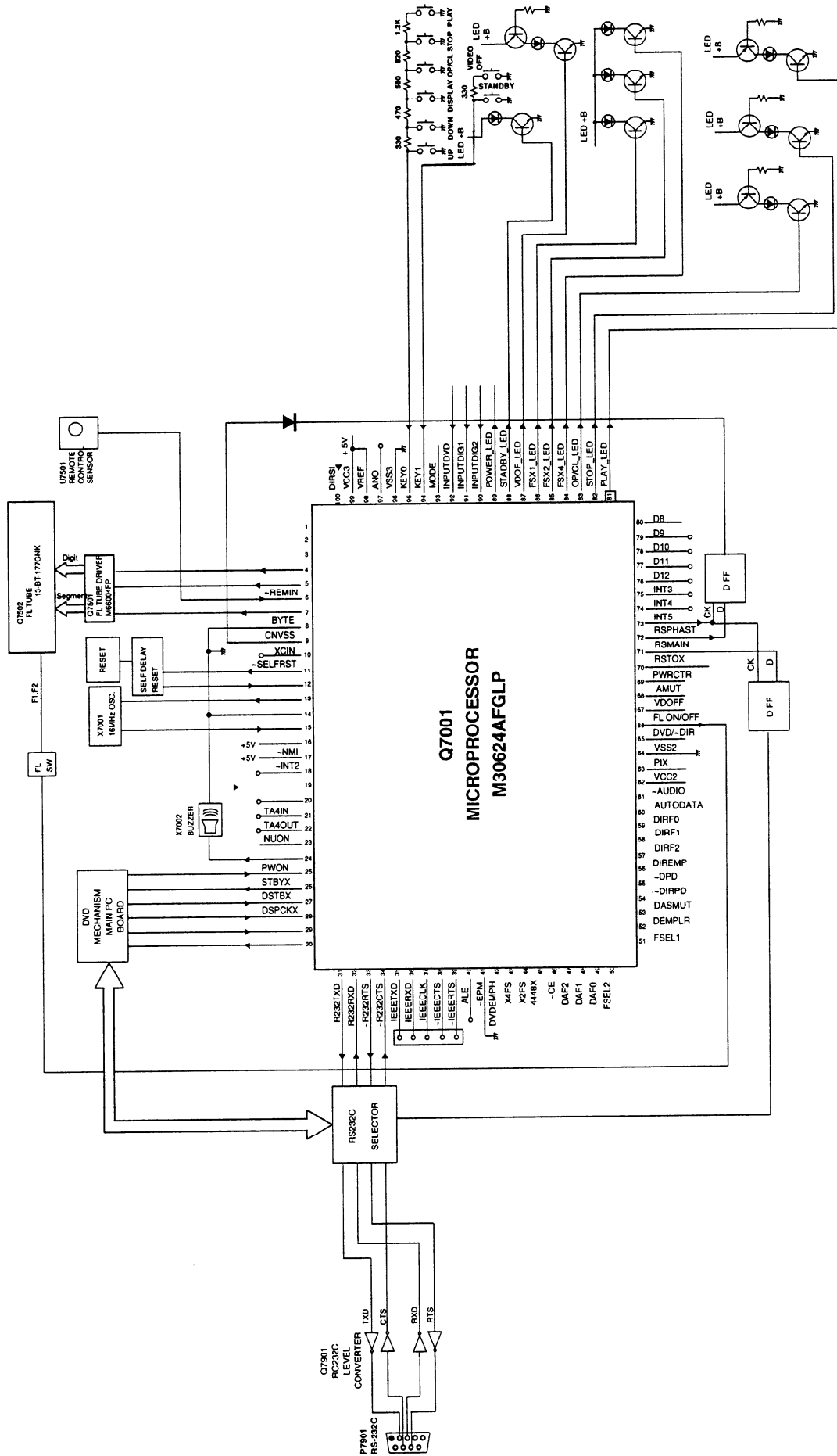
1: Input
2: GND
3: Output

M66004F
(FL driver)



| Pin No. | Symbol | Pin name | Function |
|----------------|---------------------------|-----------------------------|---|
| 13 | $\overline{\text{RESET}}$ | Reset input | This pin is used to initialize the internal state on the M66004 |
| 14 | $\overline{\text{CS}}$ | Chip select input | "L" : communication with the MCU is possible. "H" : any instruction from teh MCU is neglected. |
| 15 | SCK | Shift select input | At the rising edge from "L" to "H", input data is shifted. |
| 16 | SDATA | Serial data input | Character code or command data to display is input from MSB. |
| 21, 22 | XIN, XOUT | Clock input Clock output | Set oscillation frequency |
| 1-12 61-64 | DIG00 - DIG15 | Digit output | These pins are used to connect to digit pins of VFD. |
| 23-31 33-59 | SEG00 - SEG35 | Segment output | These pins are used to connect to segment pins of VFD. |
| 17,18 | P0,P1 | | Output port (static operation) |
| 19 | VCC1 | | Positive power supply for internal logic. |
| 60 | VCC2 | | Positive power supply for high-pressure-resistant output port. |
| 22 | VSS | | GND |
| 32 | VP | | Negative power supply for VFD drive. |

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 | DEMPLR | O | H | DEMP/LR output terminal of D/A converter. |
| 5 | FLSO | O | H | Serial data signal output terminal to FL tube driver IC. | 53 | DASMUT | 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 | Vss | O | | Select input terminal of external data bus. Connect to ground terminal. | 56 | DIREMP | I | H | Emphasis signal input terminal for DIR IC. |
| 9 | Vss | 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 | | I | | 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 | DIRFO | 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 | Vss | I | | Ground terminal. | 62 | Vcc | I | L | 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 | Vcc | I | | Power supply terminal. Apply 5V to this terminal. | 64 | Vss | I | | Ground terminal. |
| 17,18 | | | | Not used. | 65 | -DVID/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 | BUZZER | 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 | RSMAN | 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 | IICCLK/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 | | Busy signal output terminal when the program is written. | 84 | FSX4 LED | O | H | 192/176.4 kHz indicator control output terminal |
| 35 | IIEETXD | O | H | TXD terminal for communication of microprocessor IEE1394. | 85 | FSX2 LED | O | H | 96/88.2 kHz indicator control output terminal |
| 36 | IIEERXD | I | | RXD terminal for communication of microprocessor IEE1394. | 86 | FSX1 LED | O | H | 48/44.1 kHz indicator control output terminal |
| 37 | IIEECLK | I | CLK | SCLK terminal for communication of microprocessor IEE1394. | 87 | VDOF LED | O | H | VIDEO OFF indicator control output terminal |
| 38 | -IIEECTS | I | L | CST input terminal for communication of microprocessor IEE1394. | 88 | STADBY LED | O | H | STANDBY OFF indicator control output terminal |
| 39 | -IIEEBRTS | 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 | -INPUDIG2 | I | L | Select input terminal for external input 2 of digital input. |
| 41 | -EPM | | | Connect to the ground when the program is written. | 91 | -INPUDIG1 | I | L | Select input terminal for external input 1 of digital input. |
| 42 | DVDEMP | I | H | Emphasis signal input terminal for DVD. | 92 | -INPUDVD | 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 | O | H | Connect to the power supply 5V when the program is written. | 96 | Vss | I | | Power supply terminal for A/D converter. |
| 47 | DAF2 | O | H | Sampling frequency signal F2 output terminal of D/A converter. | 97 | VREF | I | | Connect to the ground terminal. |
| 48 | DAF1 | O | H | Sampling frequency signal F1 output terminal of D/A converter. | 98 | Vcc | I | | Not used. |
| | | | | | 99 | Vcc | I | | Reference voltage terminal for A/D converter. |
| | | | | | 100 | DIRSI | I | H | Power supply terminal for A/D converter. Apply 5V. |
| | | | | | | | | | Serial data input terminal from DIR IC. |

PRINTED CIRCUIT BOARD PARTS LIST

DISPLAY CIRCUIT PC BOARD(NADIS-6940-1A/1B/1C/1D)

CIRCUIT NO. PART NO. DESCRIPTION

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|----------------------|-------------------------|
| | FL tube | |
| Q7502 | 212212 | 13-BT-177GNK |
| | Remote sensor | |
| U7501 | 241329 | PIC-26043TH2 |
| | IC | |
| Q7501 | 22240685R9 | M66004FP |
| | Transistors | |
| Q7503,Q7504 | 2213145R2 | 2SC2712-GR |
| Q7505,Q7506 | 2216270R2 | IMT1A |
| Q7507,Q7511 | 2216270R2 | IMT1A |
| Q7508,Q7509 | 2216260R2 | RN1407 |
| Q7510,Q7512 | 2216260R2 | RN1407 |
| | Diodes | |
| D7501,D7503 | 225394 | SEL6914A |
| D7505 | 225394 | SEL6914A |
| D7507 | 224490750R2 or | UDZ7.5B or |
| | 224550750R2 | UDZS7.5B |
| D7508 | 225390 | SEL2910A-TP6 |
| | Capacitors | |
| C7505,C5712 | 393321017 | 100 μ F,6.3V,Elect. |
| C7511 | 393381007 | 10 μ F,50V,Elect. |
| C7514,C7517 | 393382207 | 22 μ F,50V,Elect. |
| C7520 | 355721019 | 100 μ F,6.3V,Elect. |
| | Switches | |
| S7501-S7507 | 25035699 | NPS-111-S662 |
| | Sockets | |
| P7001B | 25052255 | NSCT-22P2152 |
| P7002B | 2002A391830 | NSAS-18P0872 |
| P7701B | 25051089 | NSCT-5P876 |
| | Plug | |
| P7501A | 25055369 | NPLG-5P352 |
| | Holder | |
| Q7502A | 27191114 | FL |
| E7502-E7504 | 27191115 | LED |

STANDBY SWITCH PC BOARD (NASW-6941-1A/1B/1C/1D)

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

POWER SWITCH PC BOARD(NASW-6943-1A/1B/1C/1D)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|----------|----------------------|
| S9002 | 25035550 | NPS-111-L512P,Switch |
| C9003 | 3500196S | RE275V-103M |

POWER SUPPLY CIRCUIT PC BOARD

(NAPS-6944-1A/1B/1C/1D)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------------|-------------|
| | ICs | |
| Q9101,Q9102 | 22278005ENEC | MPC29M05HF |
| Q9301,Q9401 | 22241526 | PQ30RV21 |
| | Transistor | |
| 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 |
|---------------|-------------------|---------------------------------------|
| | Diodes | |
| D9101,D9201 | 22380022 | RBV402 |
| D9103,D9105 | 22380035 | GP104003E |
| D9203,D9204 | 223234R2 or | 1SS352 or |
| D9301,D9401 | 22380022 | RBV402 |
| D9303,D9403 | 223269R2 | 1SS355 |
| D9501-D9504 | 22380284R2 | 1SR154-400 |
| D9601-D9604 | 22380284R2 | 1SR154-400 |
| D9701 | 22380013 | RDF02M |
| D9702 | 224492700R2 | UDZ27B |
| D9703,D9704 | 22380035 | GP104003E |
| | Capacitors | |
| C9101,C9105 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9102,C9302 | 393342227S | 2200 μ F,16V,Elect. |
| C9103 | 393344707 | 47 μ F,16V,Elect. |
| C9106 | 393321017 | 100 μ F,6.3V,Elect. |
| C9201,C9203 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9202 | 393344727S | 4700 μ F,16V,Elect. |
| C9301,C9303 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9304 | 393380107 | 1 μ F,50V,Elect. |
| C9305 | 393322217 | 220 μ F,6.3V,Elect. |
| C9401,C9403 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9402 | 393343327S | 3300 μ F,16V,Elect. |
| C9404 | 393384797 | 0.47 μ F,50V,Elect. |
| C9405 | 393342217 | 220 μ F,16V,Elect. |
| C9502,C9503 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9504,C9505 | 3504369 | CE69W25V-2200M |
| C9602,C9603 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9604,C9605 | 393342227S | 2200 μ F,16V,Elect. |
| C9701,C9708 | 374723344 | 0.33 μ F \pm 5%,50V,Plastic |
| C9702 | 393384707 | 47 μ F,50V,Elect. |
| C9703,C9705 | 393382207 | 22 μ F,50V,Elect. |
| C9706,C9707 | 393382217 | 220 μ F,50V,Elect. |
| | Resistors | |
| R9209,R9210 | 453532294 | 0.22 Ω \pm 5%,1/2W,Metal |
| R9408 | 453530224 | 2.2 Ω \pm 5%,1/2W,Metal |
| R9409 | 453532294 | 0.22 Ω \pm 5%,1/2W,Metal |
| R9601-R9604 | 453532294 | 0.22 Ω \pm 5%,1/2W,Metal |
| R9706,R9707 | 415470824 | 8.2 Ω \pm 5%,1/4W,Carbon |
| R9708 | 443521004 | 10 Ω \pm 5%,1/2W,Metal oxide |
| | Sockets | |
| CN501 | 2002A262625 | NSAS-26P0875 |
| P2201A | 2003B090830 | NSAS-8P0876 |
| P4001A | 2003B091830 | NSAS-18P0877 |
| P7003A | 2002A392225 | NSAS-22P0874 |
| P9201A | 2004C291015 | NSAS-10P0902,Socket |
| | Plug | |
| P9101,P9102 | 25055171 | NPLG-8P155 |
| | Radiators | |
| E9101A,E9201A | 27160465 | RAD-135 |
| E9111A | 27160472 | RAD-141 |
| E9112A,E9311A | 27160145-1 | RAD-51 |
| E9301A,E9401A | 27160357 | (S3) |
| E9411A | 27160145-1 | RAD-51 |
| | Screws | |
| E9101B,E9111B | 82143010 | 3P+10FN(BC),Pan head |
| E9112B,E9201B | 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-6945-1A/1B/1C/1D)

| CIRCUIT NO. | PART NO. | DESCRIPTION | CIRCUIT NO. | PART NO. | DESCRIPTION |
|---|--|--|---|--|--|
| D9801 | Diode 22380022 | RBV402 | Z2001-Z2003 | Composite parts 3030043 | YS-2L(15MHz) |
| L9001 or L9001 | Coils 231252 or 231287 | NCH-3489 or NCH-3567 | C2007-C2012 C2020,C2023 C2039,C2041 C2042 C2043,C2044 C2051,C2052 C2057,C2059 C2201,C2202 C2203,C2204 C2205,C2206 C2501,C2503 | Capacitors 393380107 393380107 393321017 393321017 355721019 393321017 393321017 393344717 393344707 393322217 355721019 | 1 μ F,50V,Elect. 1 μ F,50V,Elect. 100 μ F,6.3V,Elect. 100 μ F,6.3V,Elect. 100 μ F,6.3V,Elect. 100 μ F,6.3V,Elect. 100 μ F,6.3V,Elect. 470 μ F,16V,Elect. 47 μ F,16V,Elect. 220 μ F,6.3V,Elect. 100 μ F,6.3V,Elect. <P> |
| C9001,C9002 C9801,C9803 C9804 | Capacitors 3500077 374723344 393382227S | DE7150F-472M 0.33 μ F \pm 5%,50V,Plastic 2200 μ F,50V,Elect. | R2207,R2208 | Resistors 415470224 | 2.2 Ω \pm 5%,1/4W,Carbon |
| R9803 | Resistor 453532294 | 0.22 Ω \pm 5%,1/2W,Metal | P2001 P2002 | Terminals 25045632 25045633 | NPJ-2PDYE439 NPJ-14PDRGB440 |
| P9001 | AC inlet 25055960 | NPLG-2P913 | CN301 P2501A | Sockets 25052584R2 25052588R2 | NSCT-18P2481 NSCT-22P2485 |
| S9001 | Slide switch 25065437 | NSS-22157P | P2201 P2101A | Plugs 25055134 25055707 | NPLG-4P118 NPLG-11P663 |
| F9001A,F9001B | Fuseholders 25052133 | NSCT-1P2031 | E2201A,E2202A | Radiators 27160220-1 | RAD51(B) |
| P6001A P9002,P9003 P9006,P9007 P9103 | Plugs 25055132 25055675 25055675 25055165 | NPLG-2P116 NPLG-2P631 NPLG-2P631 <GT/WT> NPLG-2P149 | E2201B,E2202B | Screws 82143010 | 3P+10FN(BC),Pan head |
| E9801A | Radiator 27160357 | (S3) | E9001,E9003 | Clampers 27301394 | HL-18-0 |
| E9801 | Label 29361769 | T1.6AL250V <P/PS/WT/GT> | | | |
| E9801B | Screw 82143010 | 3P+10FN(BC),Pan head | | | |

VIDEO CIRCUIT PC BOARD(NAVD-6946-1A/1B)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|---------------------------------|-------------------------|
| Q2016 | ICs 22241465R2 | LA7106MFP |
| Q2017 | 22241440R2 | MAX4018ESD |
| Q2018,Q2020 | 22241527R2 | EL4581CS |
| Q2023,Q2024 | 22241159R2 | TC7S02FU |
| Q2025 | 22240947R2 | TC7W241FU <P> |
| Q2029-Q2031 | 22241550R2 | EL2280CS |
| Q2032,Q2033 | 22241440R2 | MAX4218ESD |
| Q2034 | 22241443R2 | TK15420M |
| Q2501,Q2502 | 22241228R2 | TC74HC4053FP <P> |
| Q2001-Q2006 | Transistors 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 |
| Q2503 | 2214490R2 | RN1404 <P> |
| D2001 | Diodes 223234R2 | 1SS352 |
| D2002 | 225383R2 | SEC1401C |
| D2003-D2008 | 223234R2 | 1SS352 |
| D2201,D2202 | 224550560R2 | UDZS5.6B |
| D2501 | 223234R2 or 223269R2 | 1SS352 or 1SS355 <P> |

SCART TERMINAL PC BOARD (NAVD-6948-1B)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|--|--------------------------|
| Q2603,Q2604 | European model only ICs 22241550R2 | EL2210CS |
| Q2605 | 22241448R2 | NJM4580M-D |
| Q2601 | Transistors 2216280R2 | IMX1 |
| Q2602 | 2213145R2 | 2SC2712-GR |
| Q2651 | 2215940R2 | FMG12 |
| Q2652 | 2214375R2 | 2SA1162-GR |
| D2601-D2606 | Diodes 223266R2 | 1SS226 |
| D2651 | 223234R2 or 223269R2 | 1SS352 or 1SS355 |
| C2605-C2608 | Capacitors 393321027 | 1000 μ F,6.3V,Elect. |
| C2609,C2610 | 393321017 | 100 μ F,6.3V,Elect. |
| C2653,C2654 | 393341007 | 10 μ F,16V,Elect. |
| C2657,C2658 | 393344707 | 47 μ F,16V,Elect. |
| C2659 | 393324717 | 470 μ F,6.3V,Elect. |
| L2601-L2604 | Filters 230958R1 | BK1608LM182-T |
| L2605 | Coil 231237K022R2 | NCH-1471 |
| P2601 | Sockets 25052279 | NSCT-21P2176 |
| P2501B | 25052588R2 | NSCT-22P2485 |

NOTE : < P > : European model only
 < PS > : 230-240 V model only
 < WT > : 120/220-230 V model only
 < GT > : 220V model only

MICROPROCESSOR PC BOARD (NADG-6949-1A/1B)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------------|-------------------------|---------------------------|
| ICs | | |
| Q7001 | 22241512 | M30624FGAFP |
| Q7003 | 22240018 | M51943ASL |
| Q7301 | 222742415R2 | TC74HC241AF |
| Q7302, Q7303 | 22241408R2 | TC7W74FU |
| Q7304 | 22241159R2 | TC7S02FU |
| Q7305 | 22240935R2 | TC7WU04FU |
| Diodes | | |
| D7001 | 223234R2 or 223269R2 | 1SS352 or 1SS355 |
| D7301, D7302 | 223234R2 or | 1SS352 or |
| D7305, D7306 | 223269R2 | 1SS355 |
| D7303, D7304 | 225385R2 | SEC1201C |
| Buzzer | | |
| X7002 | 3010309 | PKM13EPY-4002 |
| Oscillator | | |
| X7001 | 3010329R2 | CSTCV16.00MXJ0C |
| Coil | | |
| L7301 | 231237K022R2 | NCH-1471 |
| Capacitors | | |
| C7005, C7007 | 393321017 | 100 μ F, 6.3V, Elect. |
| C7301, C7303 | 393321017 | 100 μ F, 6.3V, Elect. |
| Switch | | |
| S7301 | 25035699 | NPS-111-S662 |
| Sockets | | |
| CN602 | 25052579R2 | NSCT-13P2476 |
| P7001A | 25052218 | NSCT-22P2115 |
| P7005A | 25052572R2 | NSCT-6P2469 |
| P7301A | 25052579R2 | NSCT-13P2476 |
| Plugs | | |
| CN601 | 25056050R2 | NPLG-6P1000 |
| P7002A | 25055153 | NPLG-9P137 |
| P7003B | 25055155 | NPLG-11P139 |
| P7302 | 25055704 | NPLG-8P660 |
| Clamp | | |
| E7003 | 260226 | CP-2S |

OUTPUT TERMINAL PC BOARD (NAAF-6950-1A/1B)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-----------------------|--------------|-------------|
| ICs | | |
| Q3501 | 222740046R2T | TC74HCU04F |
| Q5101, Q5111 | 22241448R2 | NJM4580M-D |
| Q5131, Q5301 | 22241448R2 | NJM4580M-D |
| Q5501 | 22241448R2 | NJM4580M-D |
| Q9201 | 22241526 | PQ30RV21 |
| Photo couplers | | |
| Q3502, Q3503 | 24120082 | GP1FA550TZ |
| Transistors | | |
| 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 |

CIRCUIT NO. PART NO. DESCRIPTION

| | | |
|-------------------|-------------------------|---------------------------|
| Diodes | | |
| D5001, D5002 | 223234R2 or 223269R2 | 1SS352 or 1SS355 |
| Coil | | |
| L3501 | 231237K022R2 | NCH-1471 |
| Capacitors | | |
| C3502, C3504 | 393321017 | 100 μ F, 6.3V, Elect. |
| C3506 | 393321017 | 100 μ F, 6.3V, Elect. |
| C5003, C5004 | 393344707 | 47 μ F, 16V, Elect. |
| C5015, C5016 | 393324717 | 470 μ F, 6.3V, Elect. |
| C5101, C5111 | 393884707 | 47 μ F, 50V, Elect. |
| C5131, C5201 | 393884707 | 47 μ F, 50V, Elect. |
| C5211, C5231 | 393884707 | 47 μ F, 50V, Elect. |
| C5301, C5401 | 393884707 | 47 μ F, 50V, Elect. |
| C5501, C5601 | 393884707 | 47 μ F, 50V, Elect. |
| C9204 | 393380227 | 2.2 μ F, 50V, Elect. |
| C9205 | 393324717 | 470 μ F, 6.3V, Elect. |
| Terminals | | |
| P5001 | 25045637 | NPJ-4PDWR443 |
| P5002 | 25045638 | NPJ-6PDBWR444 |
| P3501, P3502 | 25045643 | NPJ-1PDOR448 |
| Sockets | | |
| P3001B | 2009990632 | NSAS-6P0878 |
| P4002B | 25052593R2 | NSCT-27P2490 |
| P5003A | 25052593R2 | NSCT-27P2490 |

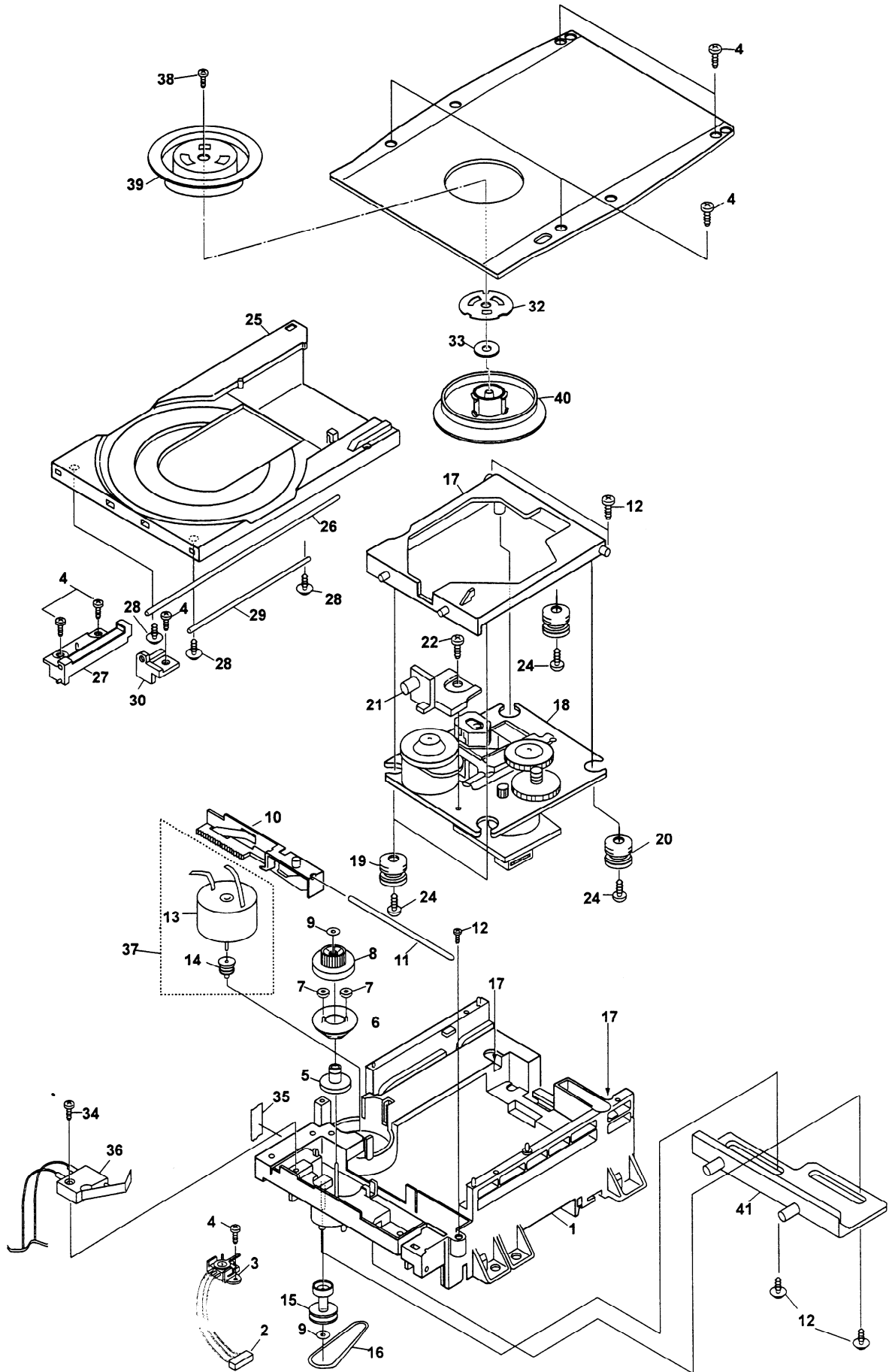
CIRCUIT NO. PART NO. DESCRIPTION

| | | |
|-----------------|----------|-----------------------|
| Plug | | |
| P9201B | 25055149 | NPLG-5P133 |
| Radiator | | |
| E9201A | 27160465 | RAD-135 |
| Screw | | |
| E9201B | 82143010 | 3P+10FN(BC), Pan head |
| Clamp | | |
| E5001 | 260224 | CP-1S |

MULTI CHANNEL OUTPUT TERMINAL PC BOARD (NAAF-6951-1A/1B)

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|--------------------|-------------------------|---------------------------|
| ICs | | |
| Q6101, Q6301 | 22241448R2 | NJM4580M-D |
| Q6501 | 22241448R2 | NJM4580M-D |
| Q7901 | 22241447R2 | MAX202CSE |
| Transistors | | |
| 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 |
| Diodes | | |
| D6001 | 223234R2 or 223269R2 | 1SS352 or 1SS355 |
| Filters | | |
| L7902-L7905 | 230958R1 | BK1608LM182-T |
| Coil | | |
| L7901 | 231237K022R2 | NCH-1471 |
| Capacitors | | |
| C6001 | 393324717 | 470 μ F, 6.3V, Elect. |
| C6008, C6009 | 393344707 | 47 μ F, 16V, Elect. |
| C6101, C6201 | 393884707 | 47 μ F, 50V, Elect. |
| C6301, C6401 | 393884707 | 47 μ F, 50V, Elect. |
| C6501, C6601 | 393884707 | 47 μ F, 50V, Elect. |
| C7905 | 393321017 | 100 μ F, 6.3V, Elect. |

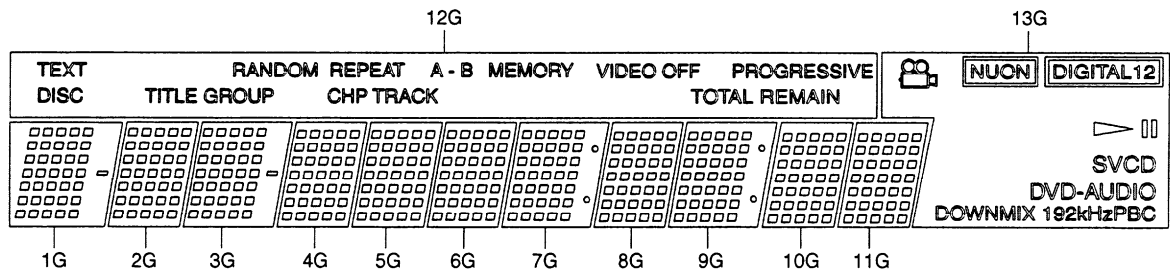
DVD MECHANISM EXPLODED VIEW



DVD MECHANISM 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 WSHER 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

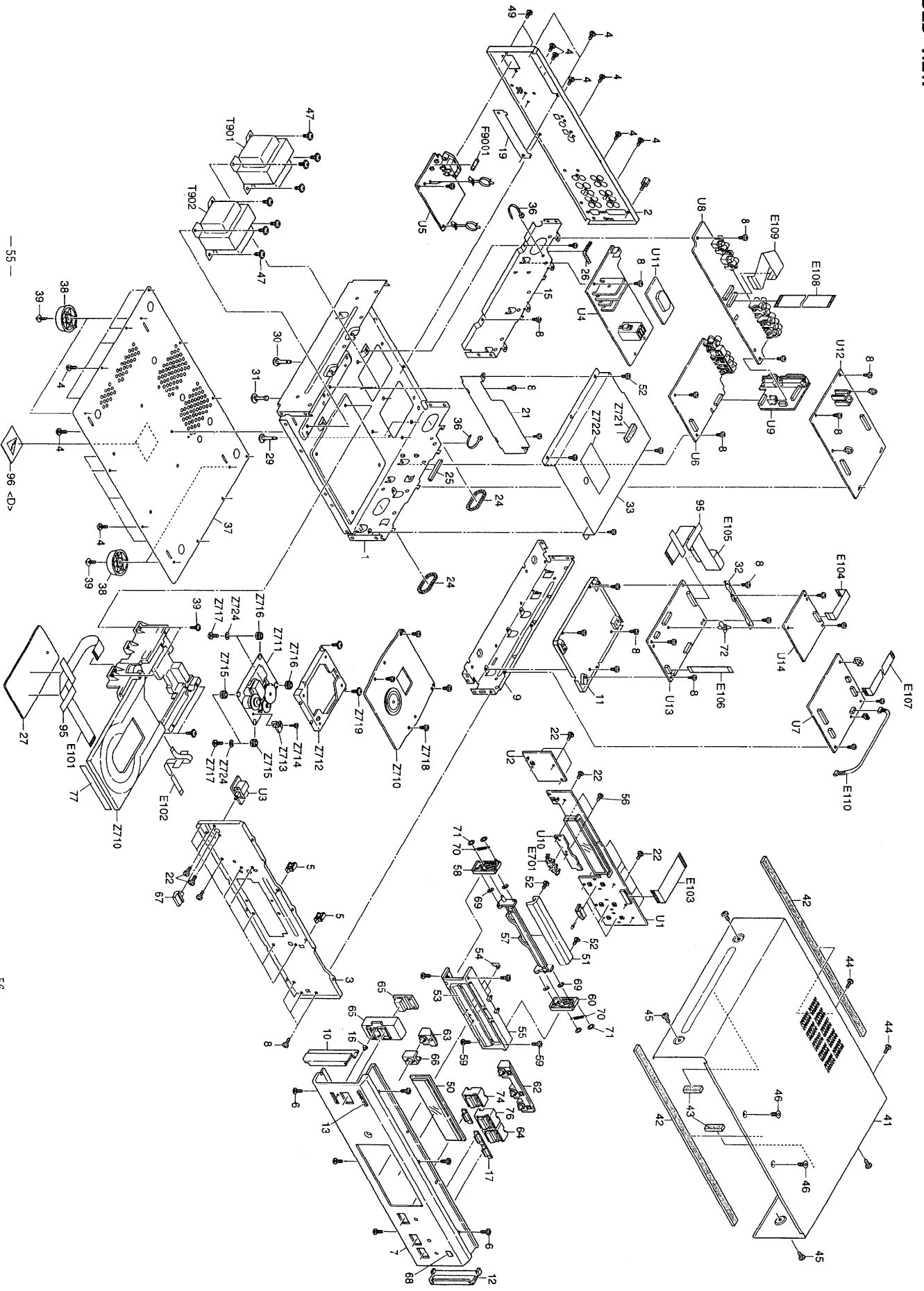
| | 1G 3G | 2G 4G-6G | 8G 10G 11G | 7G 9G | 12G | 13G |
|-----|-------|----------|------------|-------|-------------|-----------|
| P1 | 1-1 | | 1-1 | 1-1 | TEXT | — |
| P2 | 2-1 | | 2-1 | 2-1 | DISC | — |
| P3 | 3-1 | | 3-1 | 3-1 | TITLE | — |
| P4 | 4-1 | | 4-1 | 4-1 | GROUP | — |
| P5 | 5-1 | | 5-1 | 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 | — | NUON |
| P17 | 2-4 | | 2-4 | 2-4 | — | |
| P18 | 3-4 | | 3-4 | 3-4 | — | DIGITAL12 |
| 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 | — | S |
| 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 | — | PBC |
| P31 | 1-7 | | 1-7 | 1-7 | — | DOWN MIX |
| 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 | — | — |

PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|-------------|--------------------------------------|----------|-------------|---|
| 1 | 27100388 | Chassis | 51 | 28148453 | Door |
| 2 | 27122757 | Rear panel <D> | | 28148454 | Door <S> |
| | 27122761 | Rear panel <GT> | | 28148455 | Door <G> |
| | 27122759 | Rear panel <PS> | 52 | 838426088 | 2.6TTB+8B(BC),Self-tapping screw |
| | 27122760 | Rear panel <WT> | 53 | 27262658 | Plate, door |
| | 27122758 | Rear panel <P> | | 27262659 | Plate, door <S> |
| 3 | 27130852A | Bracket F | | 27262660 | Plate, door <G> |
| 4 | 838430088 | 3TTB+8B(BC),Self-tapping screw | 54 | 28198910 | Bracket SMP |
| 5 | 27190541 | WS-1NS,Clamp | 55 | 27130845 | Bracket, mechanism |
| 6 | 838430088 | 3TTB+8B(BC),Self-tapping screw | 56 | 838426088 | 2.6TTB+8B(BC),Self-tapping screw |
| 7 | 27212232 | Front panel <D> | 57 | 27220063 | Slider |
| | 27212233 | Front panel <P/PS> | 58 | 28125388 | End cap, mechanism L |
| | 27212233 | Front panel <D> | 59 | 838426088 | 2.6TTB+8B(BC),Self-tapping screw |
| | 27212234 | Front panel <S> | 60 | 28125389 | End cap, mechanism R |
| | 27212235 | Front panel <G> | 62 | 28325810 | Knob FF |
| 8 | 838130088 | 3TTB+8B,Self-tapping screw | | 28325811 | Knob FF <S> |
| 9 | 27130855 | Bracket R | | 28325812 | Knob FF <G> |
| 10 | 28125379 | End cap L | 63 | 28325822 | Knob, video |
| | 28125381 | End cap L <G> | | 28325823 | Knob, video <S> |
| | 28125380 | End cap L <S> | | 28325824 | Knob, video <G> |
| 11 | 27141768 | Retainer, main | 64 | 28325804 | Knob, play |
| 12 | 28125385 | End cap R | | 28325805 | Knob, play <S> |
| | 28125387 | End cap R <G> | | 28325806 | Knob, play <G> |
| | 28125386 | End cap R <S> | 65 | 28325801 | Knob, guide, power |
| 13 | 28135243 | Badge | | 28325802 | Knob, guide, power <S> |
| | 28135242 | Badge <S/G> | | 28325803 | Knob, guide, power <G> |
| 15 | 27130853 | Bracket C | 66 | 28325795 | Knob, guide, video |
| 16 | 28198908 | Facet 1 | 67 | 28325807 | Knob, power 2 |
| 17 | 28198911 | Facet, Play | | 28325808 | Knob, power 2 <S/G> |
| 19 | 28184772 | Cover UPG | 68 | 28135281 | Badge, DVD AUDIO |
| 21 | 27141770 | Retainer, heat sink | | 28135282 | Badge, DVD AUDIO <S/G> |
| 22 | 82143006 | 3P+6FN(BC),Pan head screw | 69 | 27270425 | Spacer |
| 24 | 28170070 | Bushing, cord | 70 | 27180582 | Spring, door |
| 25 | 28170072 | CE-012, Bushing | 71 | 891002 | Stopper |
| 26 | 28170074 | KG-016L,Bushing | 72 | 27190009 | KGLS-4S,Holder |
| 27 | 27150454A | Shield plate FFC | 74 | 28325895 | Knob, open |
| 29 | 27190524 | KGLS-14RF,Holder | | 28325896 | Knob, open <S> |
| 30 | 27190657 | KGLS-18RF,Holder | | 28325897 | Knob, open <G> |
| 31 | 27190802 | KGPS-14RF,Holder | 76 | 28325892 | Knob, stop |
| 32 | 27141766 | Retainer, main 2 | | 28325893 | Knob, stop <S> |
| 33 | 28184632-1B | Cover, mechanism | | 28325894 | Knob, stop <G> |
| 35 | 28141421 | t8*10*30,Cushion | 77 | 27262661 | Plate, mechanism |
| 36 | 260208 | Wire tie | 95 | 29110083 | Tape, cloth |
| 37 | 27170333A | Bottom panel | 96 | ⚠ 29360778 | Label, flash <D> |
| 38 | 27175311A | Leg | E101 | 2042233512 | NCFC2-233512,Flexible flat cable |
| 39 | 831430088 | 3TTW+8B(BC), Self-tapping screw | E102 | 2042082012 | NCFC2-082012,Flexible flat cable |
| 41 | 28184790 | Top cover | E103 | 2047221012 | NCFC7-221012,Flexible flat cable |
| | 28184791 | Top cover <G> | E104 | 2045181012 | NCFC5-181012,Flexible flat cable |
| | 28184792 | Top cover <S> | E105 | 2045262512 | NCFC5-262512, Flexible flat cable |
| 42 | 28141437 | Cushion | E106 | 2045131512 | NCFC5-131512,Flexible flat cable |
| 43 | 28141409A | Cushion | E107 | 2045131012 | NCFC5-131012,Flexible flat cable |
| 44 | 838430088 | 3TTB+8B(BC),Self-tapping screw | E108 | 2045271512 | NCFC5-271512,Flexible flat cable |
| 45 | 838240089 | 4TTB+8C(NI),Self-tapping screw <S/G> | E109 | 2045271512 | NCFC5-271512,Flexible flat cable |
| | 838440089 | 4TTB+8C(BC),Self-tapping screw | E110 | 2009990637 | NSAS-12P0883,Flexible flat cable |
| 46 | 801597A | Special screw | E111 | 2045222012 | NCFC5-222012,Flexible flat cable <P> |
| | 801599 | Special screw <G> | E701 | 27191116 | Holder SMP |
| | 801598 | Special screw <S> | E901 | ⚠ 253297KAW | AS-UC-2,Power supply cord <D> |
| 47 | 830440089 | 4TTC+8C(BC),Self-tapping screw | | ⚠ 253298KAW | AS-CEE-3,Power supply cord <P/PS/WT/GT> |
| 49 | 838440089 | 4TTB+8C(BC),Self-tapping screw | F9001 | ⚠ 252073 | 1.6A-SE-EAK,Fuse <P/PS/WT/GT> |
| 50 | 28191899 | Clear plate | | ⚠ 252158 | 1.6A-UL/T-237,Fuse <D> |
| | 28191900 | Clear plate <S/G> | | | |

| REF. NO. | PART NO. | DESCRIPTION | |
|----------|-------------|---|---|
| T901 | △ 2301488 | NPT-1405D,Power transformer <D> | NOTE: : Black model only <G> : Golden model only <S> : Silver model only <D> : 120V model only <P> : European model only <GT> : 220V model only <WT> : 120/220-230V model only <PS> : 230-240V model only < J > : Japanese model only |
| | △ 2301489 | NPT-1405P,Power transformer <P/PS> | |
| | △ 2301490 | NPT-1405DG,Power transformer <WT/GT> | |
| T902 | △ 2301492 | NPT-1406D,Power transformer <D> | |
| | △ 2301493 | NPT-1406P,Power transformer <P/PS> | |
| | △ 2301494 | NPT-1406DG,Power transformer <WT/GT> | |
| U1 | 1H453540-1A | NADIS-6940-1A,Display circuit PC board ass'y <D> | |
| | 1H453540-1B | NADIS-6940-1B,Display circuit PC board ass'y <P/PS> | |
| | 1H453540-1C | NADIS-6940-1C,Display circuit PC board ass'y <GT> | |
| | 1H453540-1D | NADIS-6940-D,Display circuit PC board ass'y <WT> | |
| | 1H453540-1E | NADIS-6940-1E,Display circuit PC board ass'y <J> | |
| U2 | 1H453541-1A | NASW-6941-1A,Standby switch PC board ass'y <D> | |
| | 1H453541-1B | NASW-6941-1B,Standby switch PC board ass'y <P/PS> | |
| | 1H453541-1C | NASW-6941-1C,Standby switch PC board ass'y <WT> | |
| | 1H453541-1D | NASW-6941-1D,Standby switch PC board ass'y <GT> | |
| | 1H453541-1E | NASW-6941-1E,Standby switch PC board ass'y <J> | |
| U3 | 1H453543-1A | NASW-6943-1A, Power switch PC board ass'y <D> | |
| | 1H453543-1B | NASW-6943-1B, Power switch PC board ass'y <P/PS> | |
| | 1H453543-1C | NASW-6943-1C, Power switch PC board ass'y <WT> | |
| | 1H453543-1D | NASW-6943-1D, Power switch PC board ass'y <GT> | |
| | 1H453543-1E | NASW-6943-1E, Power switch PC board ass'y <J> | |
| U4 | 1H453544-1A | NAPS-6944-1A, Power supply circuit PC board ass'y <D> | |
| | 1H453544-1B | NAPS-6944-1B, Power supply circuit PC board ass'y <P/PS> | |
| | 1H453544-1C | NAPS-6944-1C, Power supply circuit PC board ass'y <WT> | |
| | 1H453544-1D | NAPS-6944-1D, Power supply circuit PC board ass'y <GT> | |
| | 1H453544-1E | NAPS-6944-1E, Power supply circuit PC board ass'y <J> | |
| U5 | 1H453545-1A | NAPS-6945-1A, Primary circuit PC board ass'y <D> | |
| | 1H453545-1B | NAPS-6945-1B, Primary circuit PC board ass'y <P> | |
| | 1H453545-1C | NAPS-6945-1C, Primary circuit PC board ass'y <WT> | |
| | 1H453545-1D | NAPS-6945-1D, Primary circuit PC board ass'y <GT> | |
| | 1H453545-1E | NAPS-6945-1E, Primary circuit PC board ass'y <J> | |
| U6 | 1H453546-1A | NAVD-6946-1A, Video circuit PC board ass'y <D/J/PS/WT/GT> | |
| | 1H453546-1B | NAVD-6946-1B, Video circuit PC board ass'y <P> | |
| U7 | 1H453549-1A | NADG-6949-1A, Microprocessor PC board ass'y <D/J/PS/WT/GT> | |
| | 1H453549-1B | NADG-6949-1B, Microprocessor PC board ass'y <P> | |
| U8 | 1H453550-1A | NAAF-6950-1A, Output terminal PC board ass'y <D/J/PS/WT/GT> | |
| | 1H453550-1B | NAAF-6950-1B, Output terminal PC board ass'y <P> | |
| U9 | 1H453551-1A | NAAF-6951-1A, Multi channel output terminal PC board ass'y <D/J/PS/WT/GT> | |
| | 1H453551-1B | NAAF-6951-1B, Multi channel output terminal PC board ass'y <P> | |
| U10 | 1H453552-1A | NAETC-6952-1A, Sampling indicator PC board ass'y <D/J/PS/WT/GT> | |
| | 1H453552-1B | NAETC-6952-1B, Sampling indicator PC board ass'y <P> | |
| U11 | 1H453548-1B | NAVD-6948-1B, Scart terminal PC board ass'y <P> | |
| U12 | 1H453553-1 | NAAR-6953-1, Main circuit PC board ass'y | |
| U13 | 24150017 | SD-31B1, Mechanism PC board ass'y 1 | |
| U14 | 24150018 | SD-32B1, Mechanism PC board ass'y 2 | |
| Z710 | 24801006 | SD-9200K2-ZX,DVD mechanism | |
| Z711 | 24801009 | MGD-32,Mechansim, 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 △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.



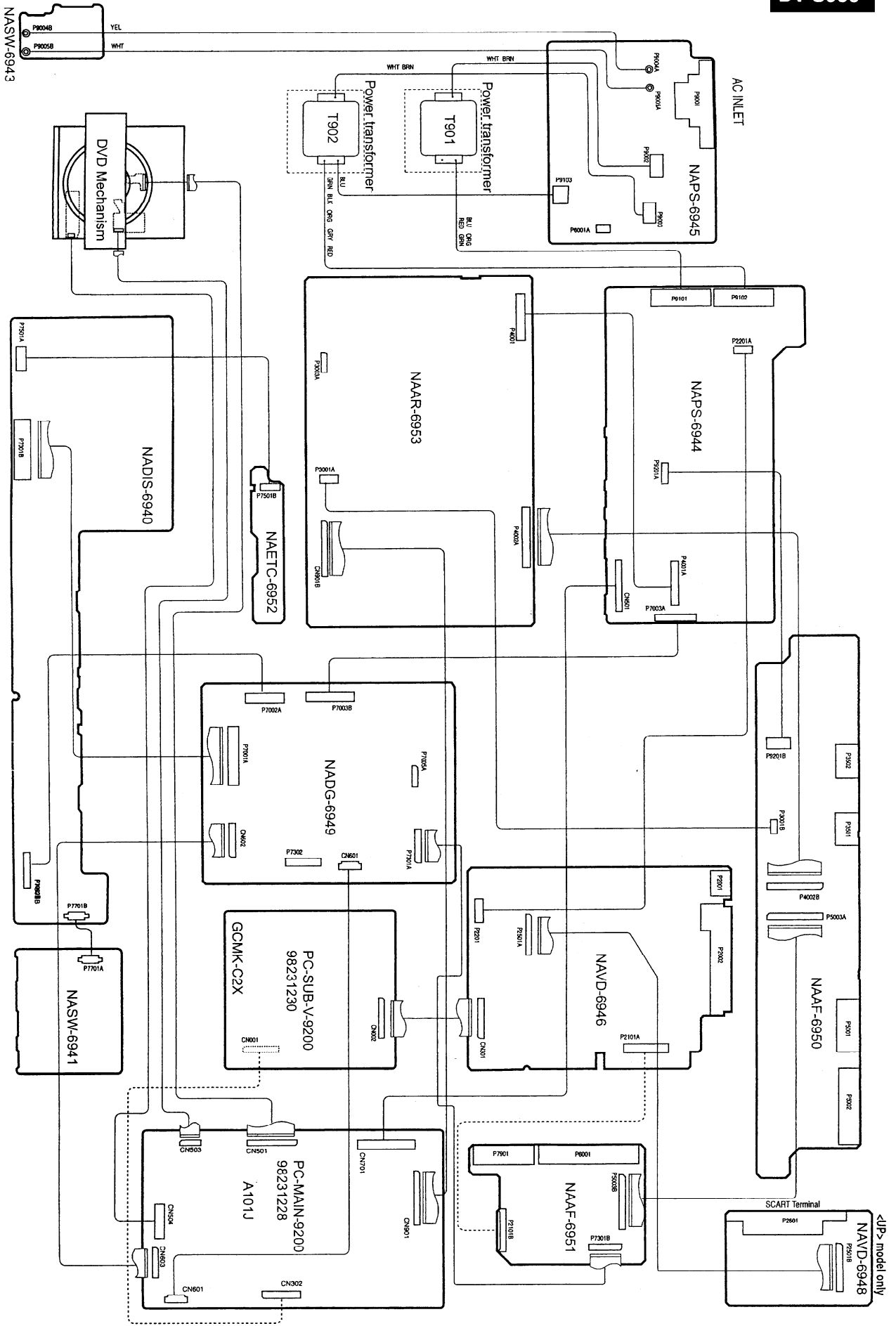
— 55 —
— 96 <D>

— 56 —

WIRING DIAGRAM

DV-S939

A B C D E F G

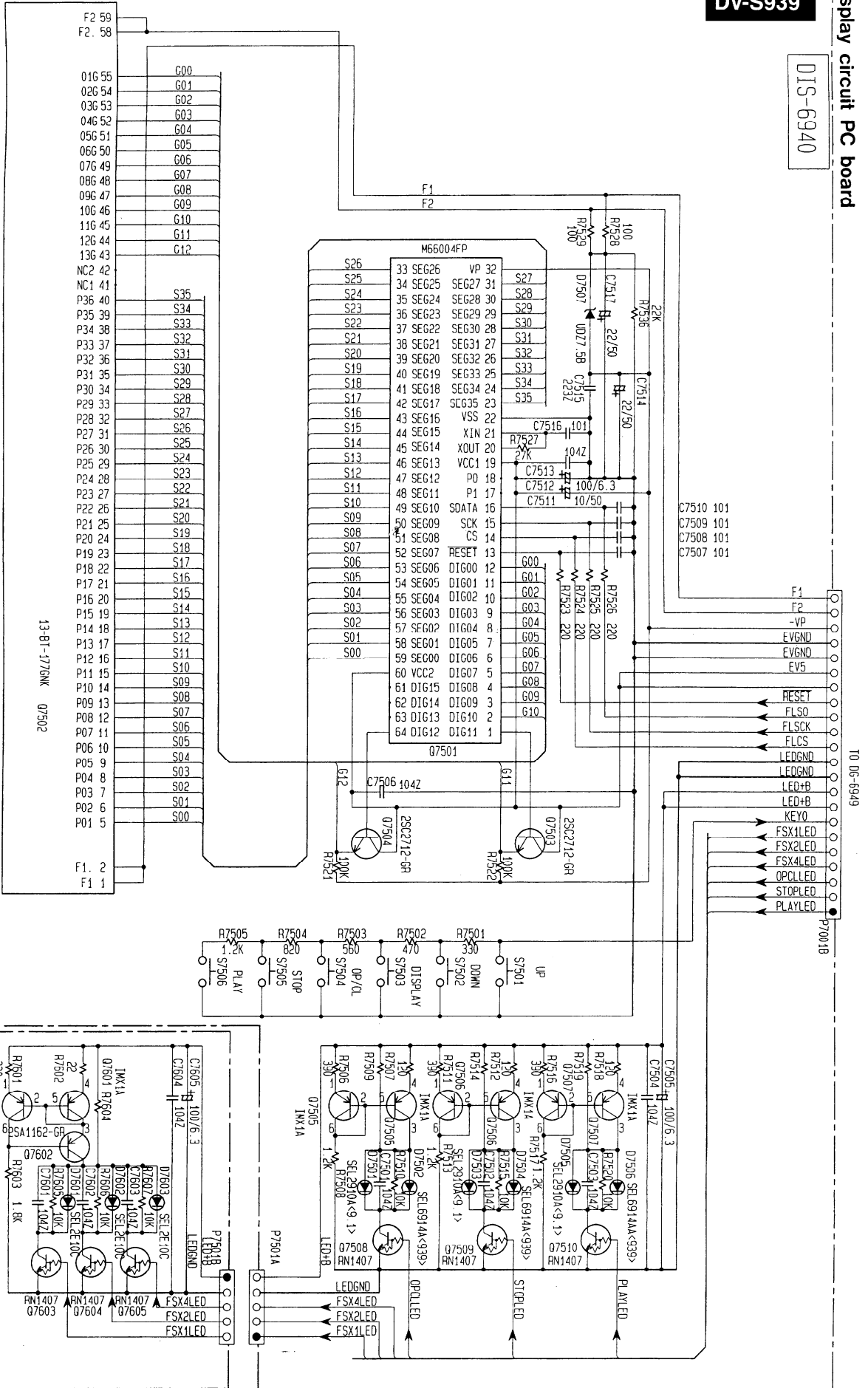


SCHEMATIC DIAGRAM 1

Display circuit PC board

DV-S939

DIS-6940



A

B

C

D

E

F

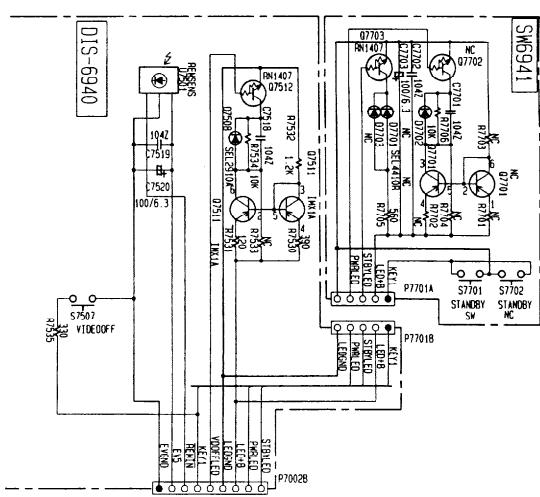
G

Sampling indicator PC board

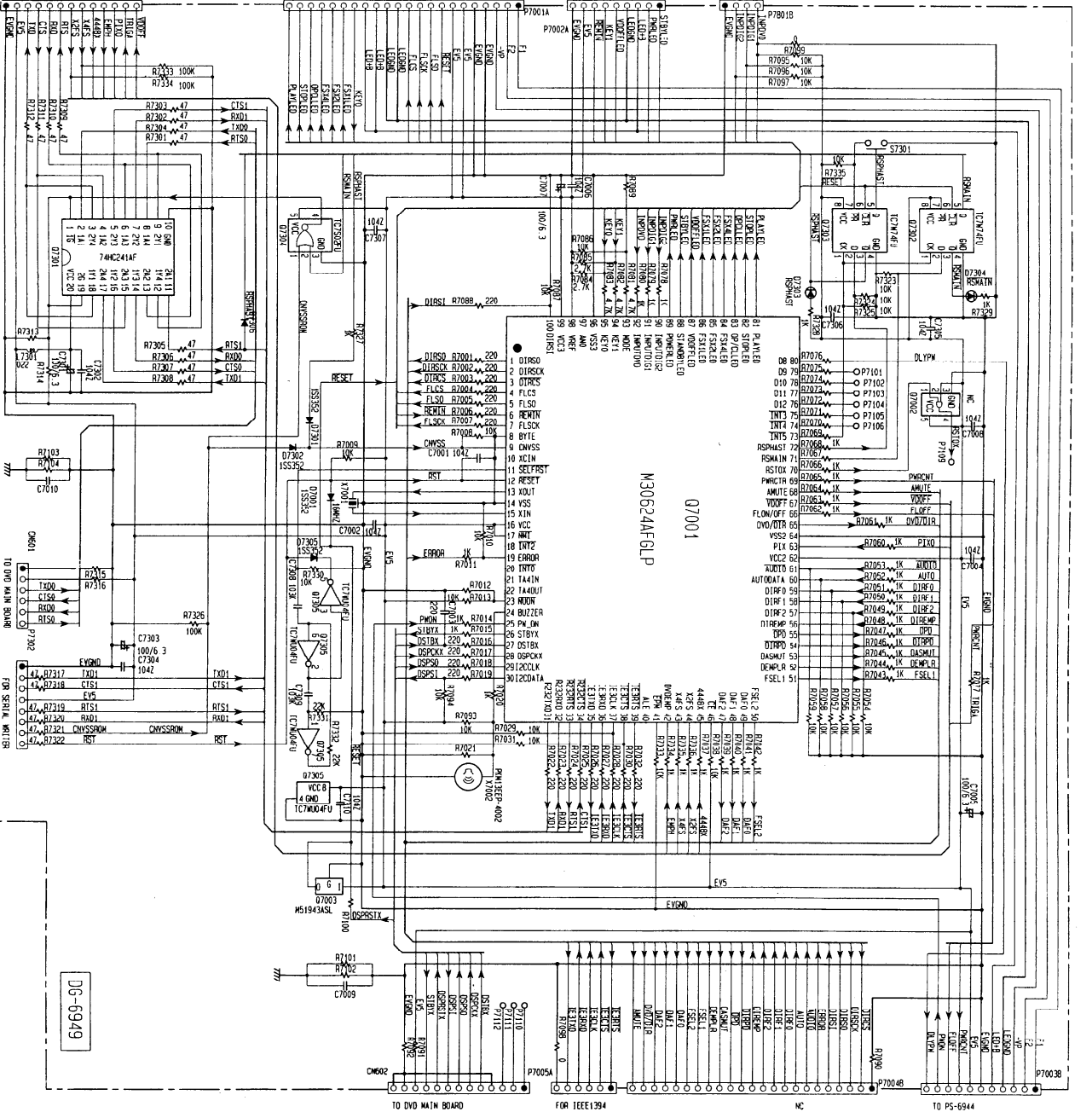
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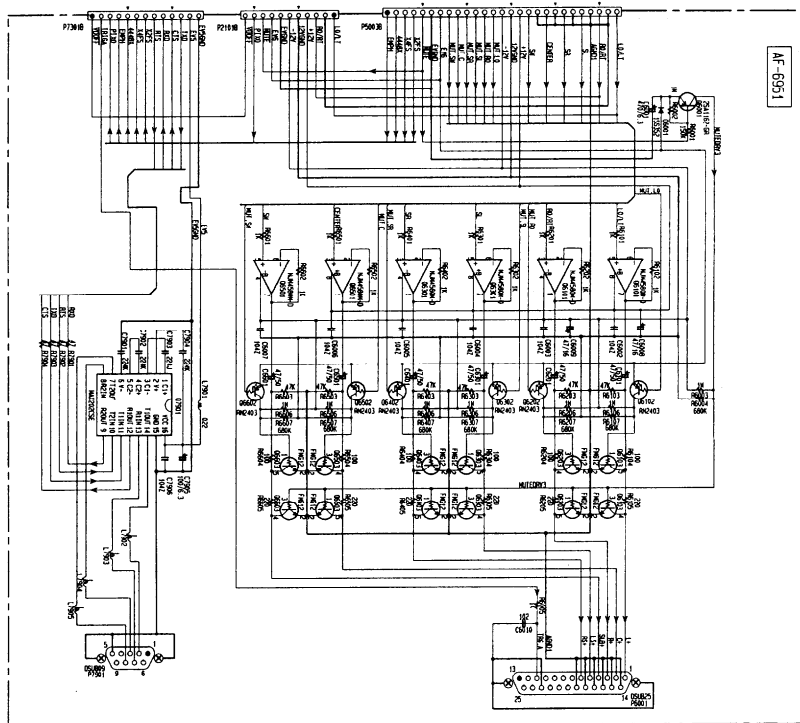
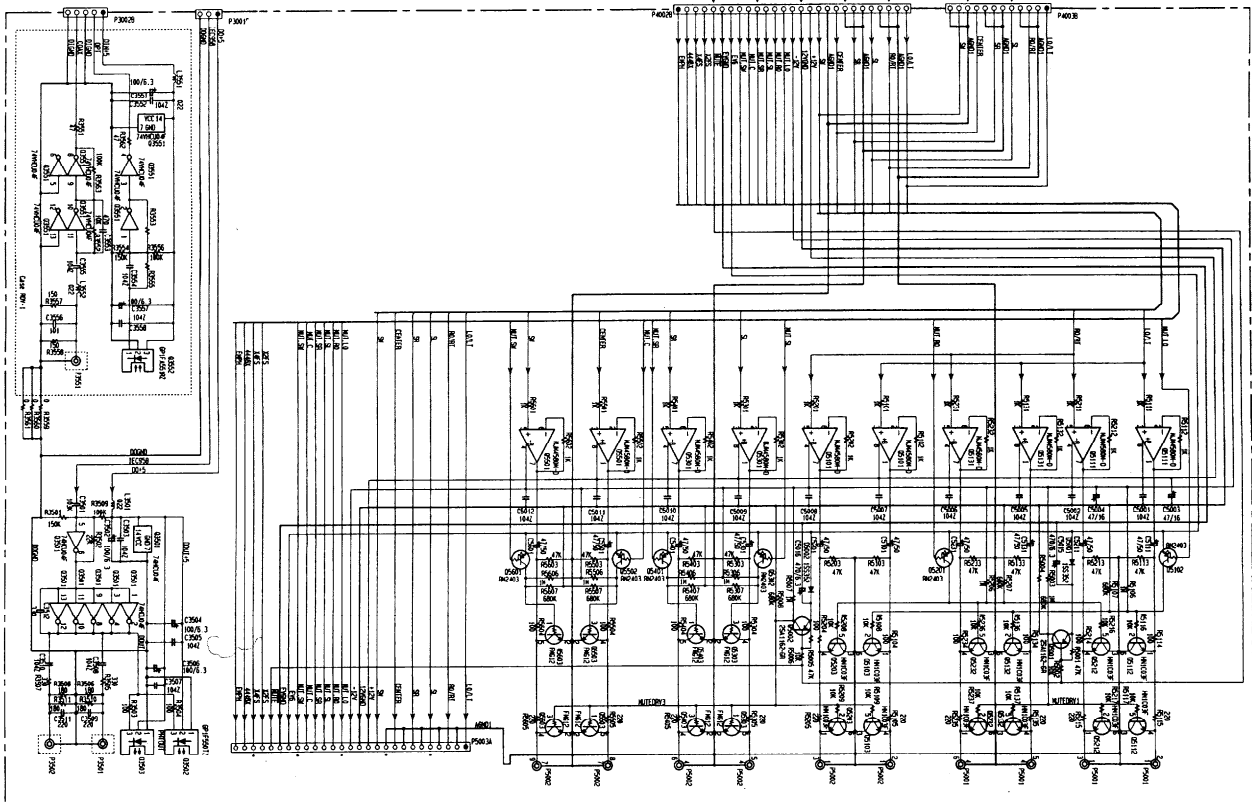
A B C D E F G

Standby switch PC board



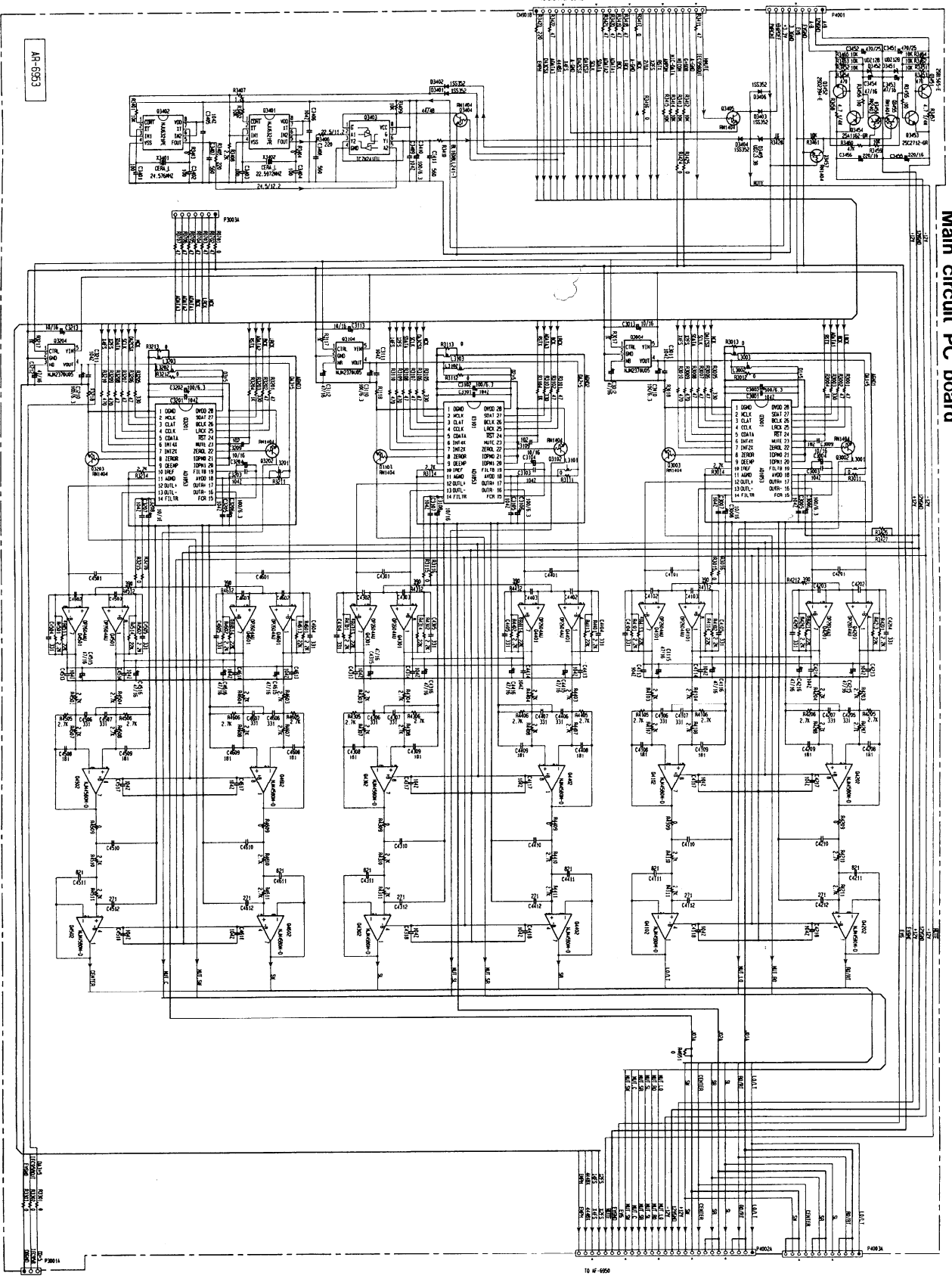
Microprocessor PC board



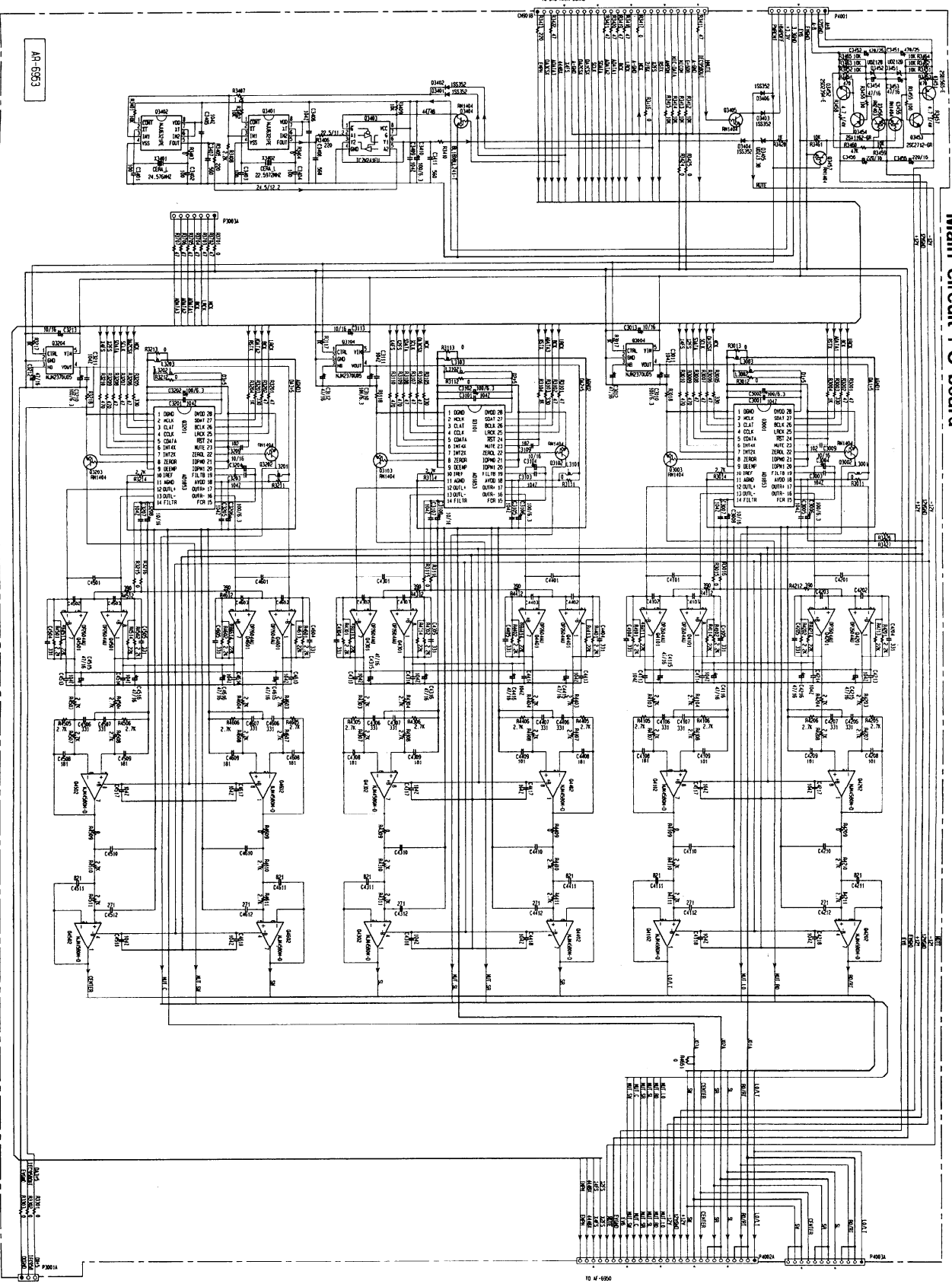


Multi channel PC board NAAF-6951

Main circuit PC board



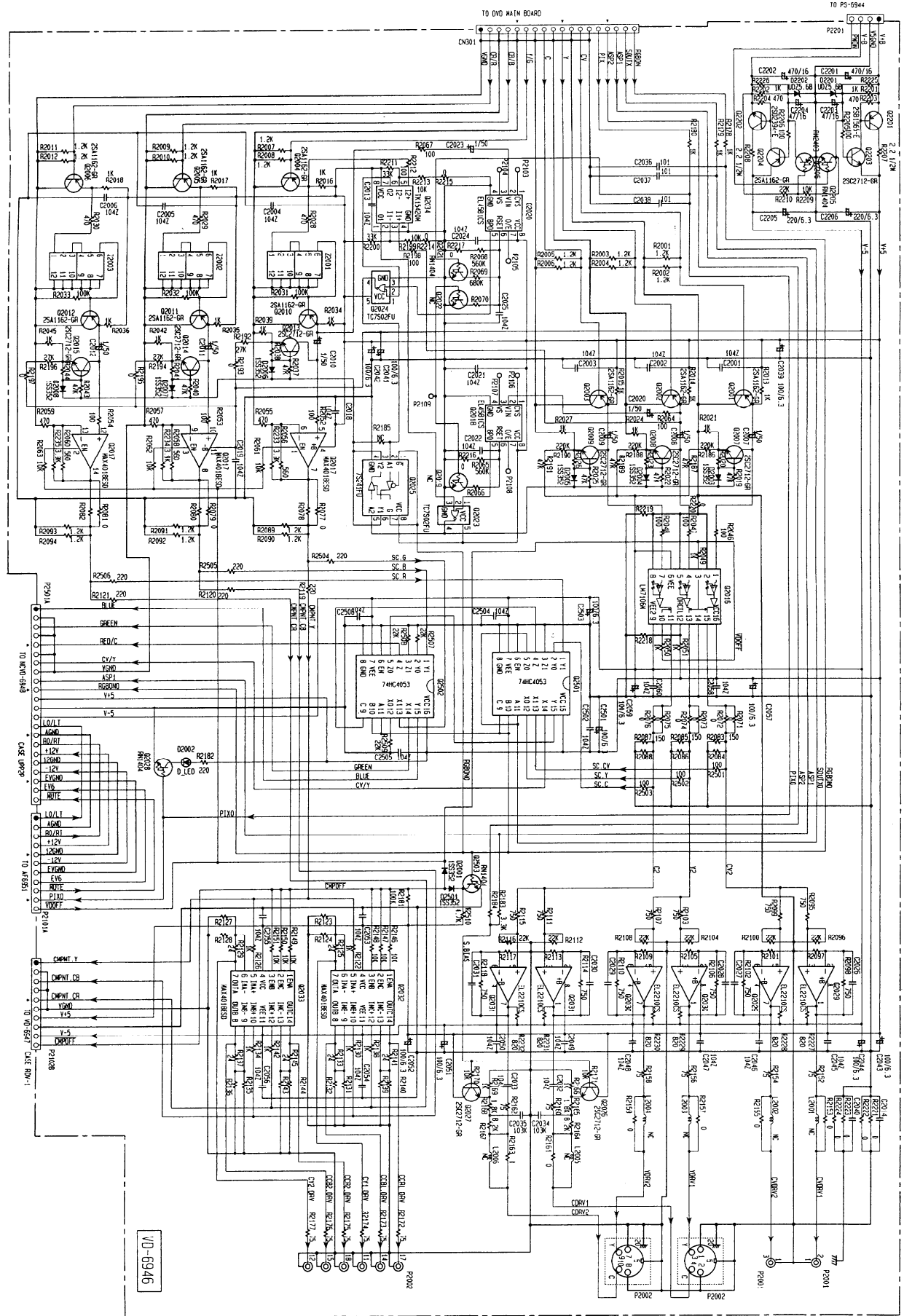
A B C D E F G



AR-6563

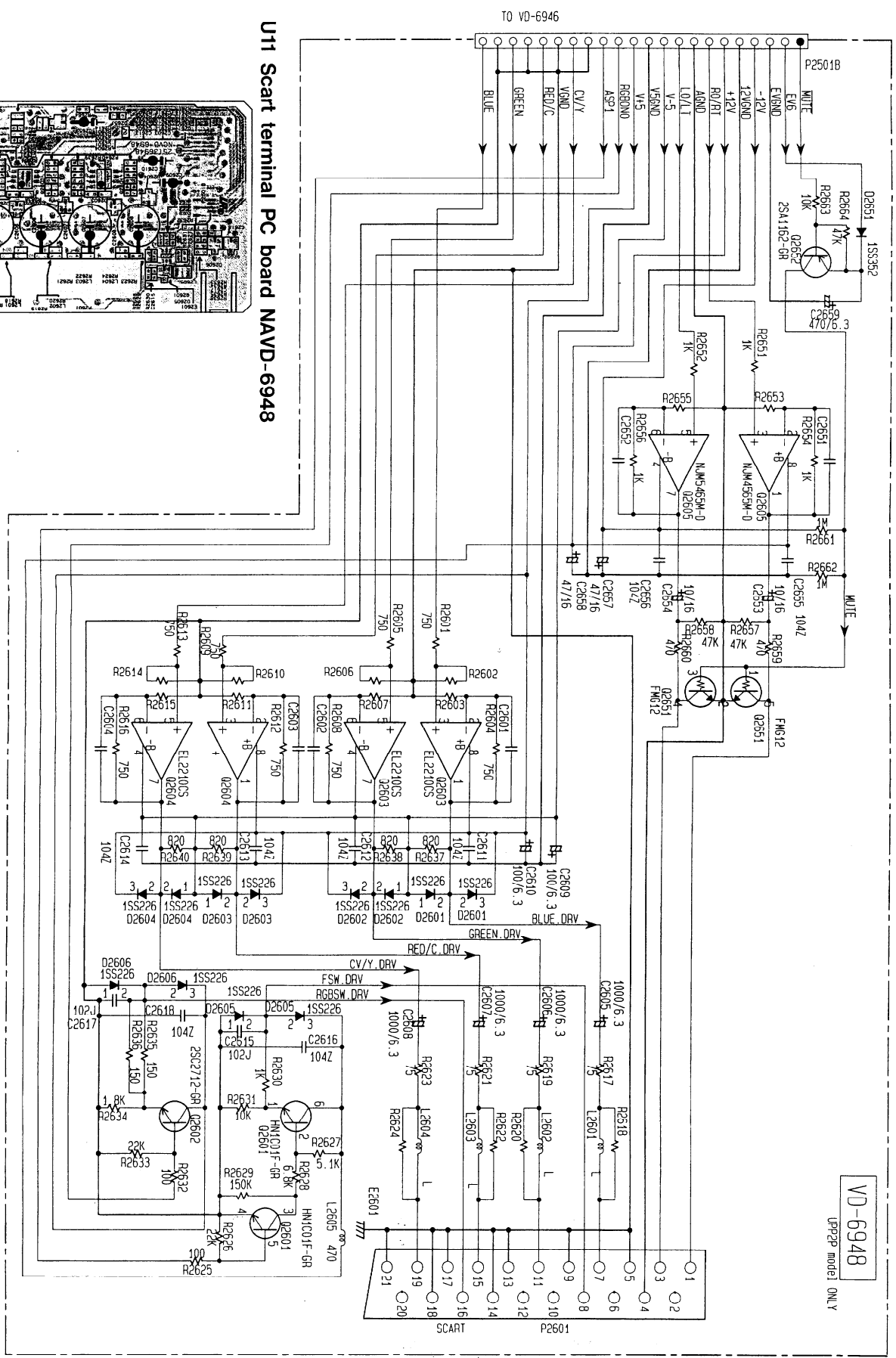
SCHEMATIC DIAGRAM 6 <UP> model only
Video circuit PC board

A B C D E F G

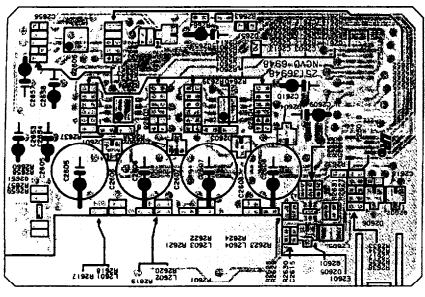


A B C D E F G

TO VD-6946



U11 Scart terminal PC board NAVD-6948

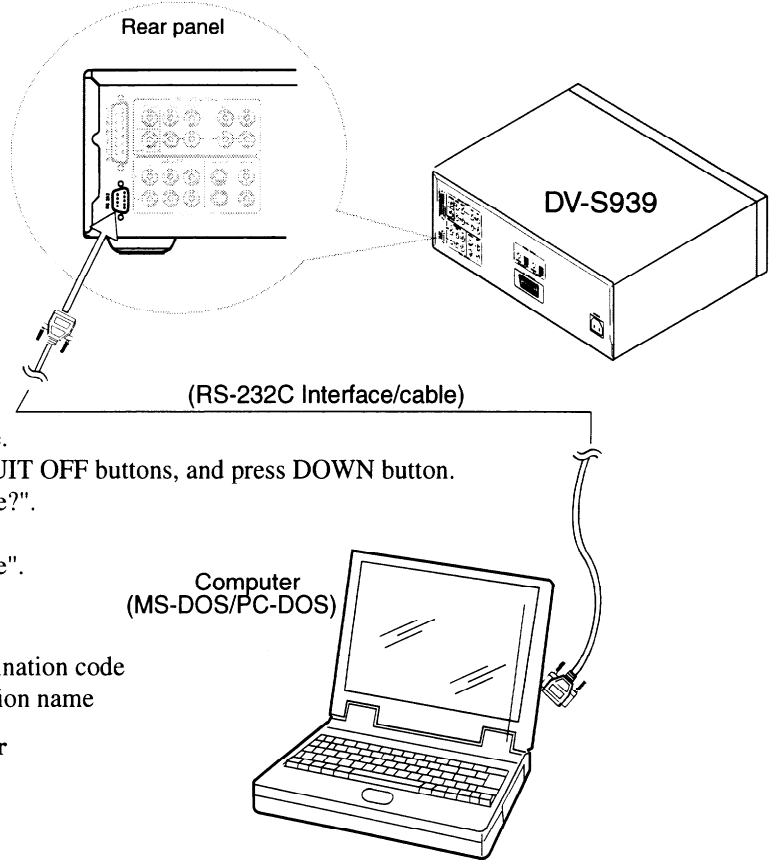


Component side

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 above.

Turn POWER switch to ON to set the standby mode.

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

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

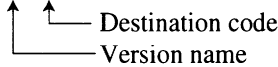
1-3. Press the STANDBY/ON button.

It can be displayed on the FL display as "Main Write".

1-4. Writing operation by the computer.

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

1-5. Power off the unit.



2. Writing the E²PROM-data of main microprocessor

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

2.2. Press and hold down DISPLAY, VIDEO and press the OFF+DOWN buttons with standby condition. -----"Main Write?"

2.3 Press the standby button. -----"Main Write"

2.4. Writing operation by the computer.

Program : com99.EXE File : s939r .txt

2.5. Power off the unit. : Destination of region code

Fig. 1 : Cable connection of the computer to DV-S939

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

| Item | UD | UWT/UGT | UP | UPA |
|-------------|-------------|----------|-------------|-------------|
| ROM Version | | | | |
| Region | 1 | 3 | 2 | 4 |
| OSD | Eng/Fre/Spa | Eng/Chi | Eng/Fre/Spa | Eng/Fre/Spa |
| VCD | On | On | On | On |
| BUZZER | On | On | On | On |
| A.3D | Off | Off | Off | Off |
| RANDOM | On | On | On | On |
| KARA | Off | Off | Off | Off |
| DTS | On | On | On | On |
| VOCAL | Setup | Setup | Setup | Setup |
| DIMMER | 3Type | 3Type | 3Type | 3Type |
| V.3D | On | On | On | On |
| V-FMT | NTSC | PAL/NTSC | PAL/NTSC | PAL/NTSC |
| JOG | Off | Off | Off | Off |
| MPEG-A | On | On | On | On |

3. Factory setting confirmation

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

| | | D | WT/GT | P | PS |
|-----------|------------------------|---|-------|----|-----------|
| Picture | TV/SHARP | | 4 | :3 | LB |
| | BLACKER THAN BLACK | | | | OFF |
| | Progressive 4 : 3 out | | | | FULL |
| | Progressive Conversion | | | | AUTO |
| AUDIO | AUDIO OUT SELECT | | | | Bitstream |
| 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.

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 | — | 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 | 29053640 | Carton box <D> | 119 | 29095866 | Sheet |
| | 29053641 | Carton box <G> | 120 | 2010388 | Video connection cable |
| | 29053642 | Carton box <S> | 121 | 2010389 | S-video cable |
| | 29053656 | Carton box | 122 | 2010390 | DB-25 cable |
| 102 | 29095893 | Sheet | 123 | 24140438 | RC-438DV,Remote controller |
| 103 | 29091963A | Pad, front, bottom | 124 | 3010054 | UM-3,Battery |
| 104 | 29362745 | Label <P> | 125 | 29355347 | Instruction sheet THX |
| | 29362746 | Label <PS> | 126 | 29362526 | Label |
| | 29362747 | Label <WT> | 127 | 29342987 | Instruction manual E <PS/WT/GT> |
| | 29362748 | Label <GT> | 128 | 29342988 | Instruction manual E <P> |
| 105 | 29091964A | Pad, rear, bottom | 129 | 29343012 | Instruction manual E <D> |
| 106 | 29362715 | Label UPC <D> | 130 | 29342990 | Instruction manual T <WT/GT> |
| | 29362724 | Label EAN <S> | 131 | 29342991 | Instruction manual FS <P> |
| | 29362722 | Label EAN | 132 | 29342994 | Instruction manual FS <PS> |
| | 29362723 | Label EAN <G> | 133 | 29342992 | Instruction manual ISw <P> |
| 107 | 29091965A | Pad, front, top | 134 | 29342993 | Instruction manual GD <P> |
| 108 | 29091966A | Pad, rear, top | 135 | ⚠ 25055018 | CV-K-1,Conversion plug <WT> |
| 109 | 29095894 | 75*300, Sheet | 137 | ⚠ 253297KAW | AS-UC-2,Power supply cord <D> |
| 110 | 29105207A | Case, accessory | | ⚠ 253298KAW | AS-CEE-3,Power supply cord <P/GT/WT/PS> |
| 111 | 29095880 | 0.515*900*900,Sheet | | | |
| 112 | 29100034-1A | 850*650,Polybag | | | |
| 113 | 29110149 | Cellophane tape | | | |
| 114 | 282321 | Staple | | | |
| 115 | 29110141 | PP tape | | | |
| 116 | 29100097-1A | 350*250,Polybag | | | |
| 117 | 29365083A | Warranty card | | | |

NOTE : : Black model only
 <G> : Golden model only
 <S> : Silver model only
 <D> : 120V model only
 <P> : European model only
 <GT> : 220V model only
 <WT> : 120/220-230V model only
 <PS> : 230-240V model only

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

PACKING VIEW

