

# MICRO COMPONENT SYSTEM RDX-E600MK2 DVD PLAYER DVD-E600MK2

## SERVICE MANUAL

The RDX-E600MK2 consists of the RX-E600MK2 and the DVD-E600MK2.  
This service manual is for the DVD-E600MK2.  
For the RX-E600MK2 service manual, please refer to the following publication number:

RX-E600MK2 100983

DVD-E600MK2

### IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

**WARNING:** Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

**IMPORTANT:** The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

**WARNING:** Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

**IMPORTANT:** Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

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This Service Manual uses recycled paper.

100984

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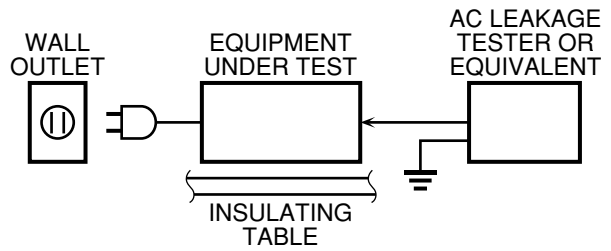
# YAMAHA

YAMAHA CORPORATION  
P.O.Box 1, Hamamatsu, Japan

05.10

## TO SERVICE PERSONNEL

- Critical Components Information**  
Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
- Leakage Current Measurement (For 120V Models Only)**  
When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.
  - Meter impedance should be equivalent to 1500 ohms shunted by 0.15µF.



- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

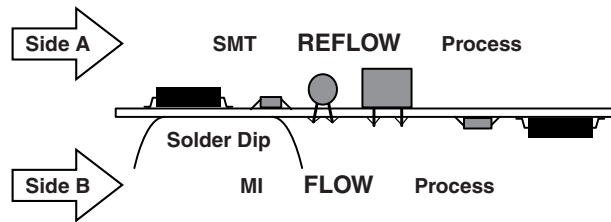
Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## About Lead Free Solder

The P.C.B.s installed in this unit are soldered using the following solder.

	SIDE A	SIDE B
MAIN P.C.B	-	Lead Free Solder



Among some types of lead free solder currently available, it is recommended to use one of the following types for the repair work.

- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

Caution:

- As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.
- If lead solder must be used, be sure to remove lead free solder from each terminal section of the parts to be replaced and from the area around it completely before soldering, or make sure that the lead free solder and lead solder melt together fully.

## WARNING: Laser Safety

This product contains a laser beam component. This component may emit invisible, as well as visible radiation, which may cause eye damage. To protect your eyes and skin from laser radiation, the following precautions must be used during servicing of the unit.

- 1) When testing and/or repairing any component within the product, keep your eyes and skin more than 30 cm away from the laser pick-up unit at all times. Do not stare at the laser beam at any time.
- 2) Do not attempt to readjust, disassemble or repair the laser pick-up, unless noted elsewhere in this manual.
- 3) CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## Laser Emitting conditions:

- 1) When the Top Cover is removed, and the STANDBY/ON SW is turned to the "ON" position, the laser component will emit a beam for several seconds to detect if a disc is present. During this time (5-10 sec.) the laser may radiate through the lens of the laser pick-up unit. Do not attempt any servicing during this period!  
If no disc is detected, the laser will stop emitting the beam. When a disc is loaded, you will not be exposed to any laser emissions.
- 2) The laser power level can be adjusted with the VR on the pick-up PWB, however, this level has been set by the factory prior to shipping from the factory. Do not adjust this laser level control unless instruction is provided elsewhere in this manual. Adjustment of this control can increase the laser emission level from the device.

## Laser Diode Properties

Type:	Semiconductor laser GaAIAs
Wave length:	650 nm (DVD) 780 nm (VCD/CD)
Output Power:	7 mW (DVD) 10 mW (VCD/CD)
Beam divergence:	60 degree

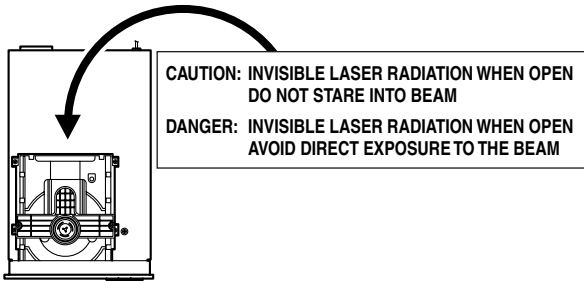
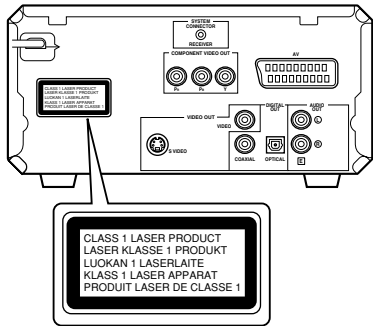
**VARO!** : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

**WARNING!** : OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

**WARNING**

<p><b>CAUTION</b> Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.</p>
<p><b>ATTENTION</b> L'emploi de commandes, de réglages ou un choix de procédures différents des spécifications de cette brochure peut entraîner une exposition à d'éventuelles radiations pouvant être dangereuses.</p>
<p><b>ACHTUNG</b> Die Verwendung von Bedienungselementen oder Einstellungen oder die Durchführung von Bedienungsvorgängen, die nicht in dieser Anleitung aufgeführt sind, kann zu einem Kontakt mit gefährlichen Laserstrahlen führen.</p>
<p><b>OBSERVERA</b> Användning av kontroller och justeringar eller genomförande av procedurer andra än de som specificeras i denna bok kan resultera i att du utsätter dig för farlig strålning.</p>
<p><b>ATTENZIONE</b> Uso di controlli o regolazioni o procedure non specificamente descritte può causare l'esposizione a radiazioni di livello pericoloso.</p>
<p><b>PRECAUCIÓN</b> El uso de los controles o los procedimientos de ajuste o utilización diferentes de los especificados en este manual pueden causar una exposición peligrosa a la radiación.</p>
<p><b>VOORZICHTIG</b> Gebruik van bedieningsorganen of instellingen, of uitvoeren van handelingen anders dan staan beschreven in deze handleiding kunnen leiden tot blootstelling aan gevaarlijke stralen.</p>

<p>The unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if this unit itself is turned off. This state is called the standby mode. In this state, this unit is designed to consume a very small quantity of power.</p>
<p>L'appareil n'est pas isolé de la source d'alimentation aussi longtemps qu'il reste branché sur une prise murale, même lorsqu'il est éteint. Il est alors dit en mode «Veille». Dans ce mode, l'appareil consomme très peu de courant.</p>
<p>Das Gerät ist nicht vom Netz getrennt, solange der Netzstecker noch mit der Wandsteckdose verbunden ist, selbst wenn das Gerät ausgeschaltet wurde. Dieser Betriebszustand wird als Bereitschaftsmodus bezeichnet. In diesem Zustand nimmt das Gerät eine sehr geringe Menge Strom auf.</p>
<p>Enheten är inte urkopplad från nätet så länge som den är ansluten till vägguttaget även om enheten i sig självt är avstängd. Detta kallas för beredskapsläge och i detta tillstånd konsumerar apparaten minimalt med ström.</p>
<p>L'unità non è scollegata dall'impianto elettrico di casa sintanto che rimane collegata ad una presa di corrente anche se è spenta. Questo modo viene chiamato "modo di attesa". In esso, l'unità consuma una quantità molto bassa di energia per mantenere in memoria le impostazioni da voi fatte.</p>
<p>Aunque el propio aparato se encuentre apagado, éste no se desconectará de la fuente de CA siempre que se mantenga enchufado a la toma de corriente. Este estado recibe el nombre de "modo de espera". En este estado, este aparato ha sido diseñado para consumir una cantidad muy pequeña de energía.</p>
<p>De stroomtoevoer naar het toestel is niet afgesloten zolang de stekker nog in het stopcontact zit, zelfs niet als het toestel zelf uitgeschakeld is. Deze toestand wordt "standby" (waak- of paraatstand) genoemd. Het toestel is ontworpen om in deze toestand.</p>



<p><b>CAUTION</b> VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.  <b>ADVARSEL</b> SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.  <b>ADVARSEL</b> SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.  <b>VARNING</b> SYNLIG OCH OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD. BETRakta EJ STRÅLEN.  <b>VARO!</b> AVATTAESSA OLET ALTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.  <b>VORSICHT</b> SICHTBARE UND UNSICHTBARE LASERSTRALUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.  <b>DANGER</b> VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.  <b>ATTENTION</b> RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.</p>
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DVD-E600MK2

## Warning for power supply

The primary side of the power supply carries live mains voltage when the player is connected to the mains even when the player is switched off !

This primary area is not shielded so it is possible to touch copper tracks and/or components when servicing the player. Service personnel have to take precautions to prevent touching this area or components in this area .

The primary side of the power supply has been indicated with a lightening stroke and a stripe-marked print on the printed wiring board.

### Note:

The screws on the DVD mechanism may never be touched, removed or re-adjusted.

Handle the DVD mechanism with care when the unit has to be exchanged!

The DVD mechanism is very sensitive for dropping or giving shocks.

## ■ PREVENTION OF ELECTROSTATIC DISCHARGE

The laser diode in the DVD mechanism may be damaged due to static electricity from clothes or the human body. Use caution to prevent electro static damage when servicing or handling the DVD-mechanism.

### 1. Grounding for electro static damage prevention

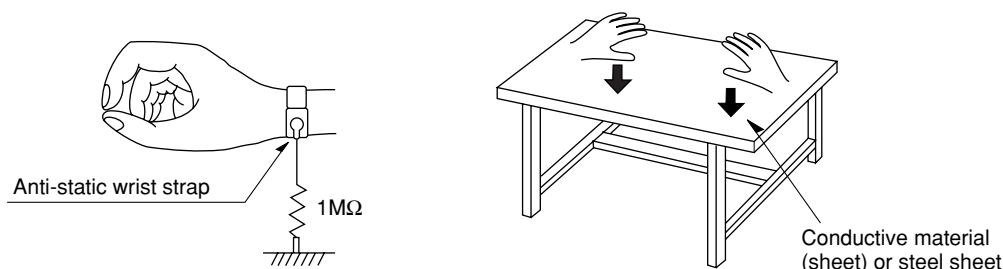
Some devices, such as the DVD player, use an optical pickup (laser diode) that will be damaged by static electricity in the working environment. Only attempt service after ensuring that all grounding procedures have been completed.

#### 1. Worktable grounding

Put a grounded conductive material (sheet) or iron sheet on the area where the optical pickup is placed.

#### 2. Human body grounding

Use an anti-static wrist strap to discharge the static electricity from your body.



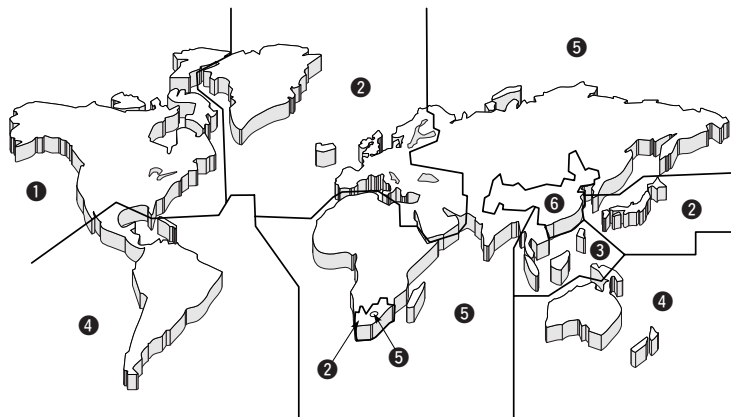
### 2. Handling Precautions for DVD mechanism

1. Handle the DVD mechanism gently, as it is an extremely high-precision assembly.
2. The flexible cable lines may break if an excessive force is applied to it. Use caution when handling the cable.
3. The semi-fixed resistor for laser power adjustment should not be adjusted. Do not turn the resistor.

## ■ LOCALE MANAGEMENT INFORMATION

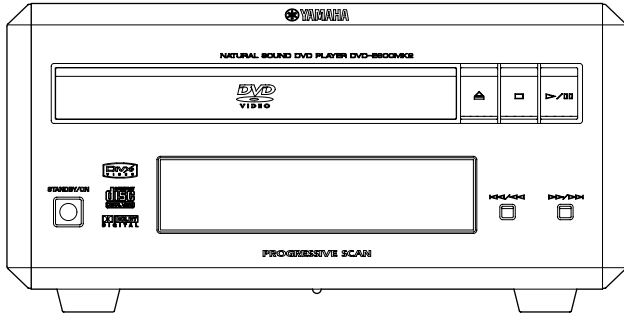
Locale Management Information : This DVD player is designed and manufactured to respond to the Locale Management Information that is recorded on a DVD disc. If the Locale number described on the DVD disc does not correspond to the Locale number of this DVD player, this DVD player cannot play this disc.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.



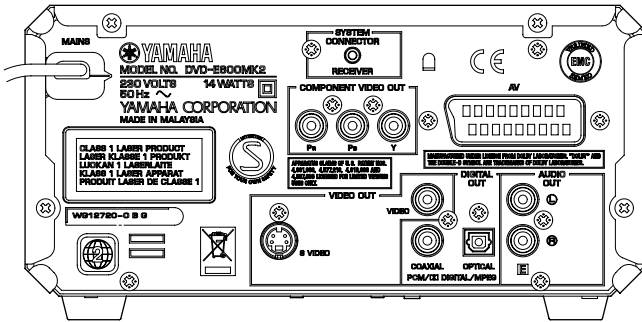
## FRONT PANEL

B, G, E models

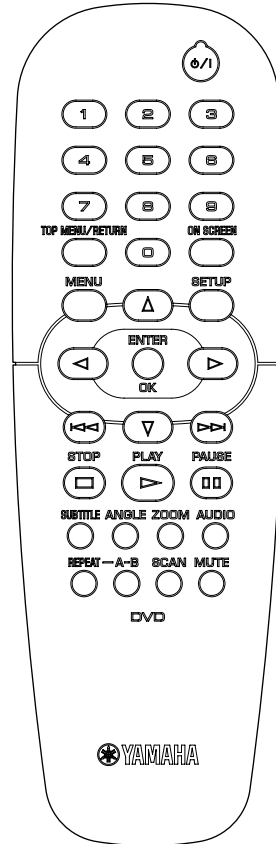


## REAR PANEL

B, G, E models



## REMOTE CONTROL PANEL



## SPECIFICATIONS

### PLAYBACK SYSTEM

DVD Video  
Video CD & SVCD  
CD  
PICTURE CD  
CD-R, CD-RW  
DVD+R, DVD+RW  
DVD-R, DVD-RW

### VIDEO PERFORMANCE

Video (CVBS) Output 1 Vpp into 75 ohms  
S-Video Output Y: 1 Vpp into 75 ohms  
C: 0.3 Vpp into 75 ohms  
Component Video Output Y: 1 Vpp into 75 ohms  
Pb/Cb Pr/Cr: 0.7 Vpp into 75 ohms  
RGB (SCART) Output 0.7 Vpp into 75 ohms

### AUDIO FORMAT

Digital Mpeg/Dolby Digital/Compressed Digital  
DTS  
PCM 16, 20, 24 bits  
fs, 44.1, 48, 96 kHz  
MP3 (ISO 9660) 24, 32, 56, 64, 96, 128, 256 kbps  
fs 16, 22.05, 24, 32, 44.1, 48 kHz  
WMA 32 kbps - 192 kbps, Mono, Stereo  
Analog Sound Stereo

### AUDIO PERFORMANCE

DA Converter 24 bits  
Signal-Noise (1kHz) 105 dB  
Dynamic Range (1kHz) 100 dB  
DVD fs 96 kHz 2 Hz - 44 kHz  
fs 48 kHz 2 Hz - 22 kHz  
SVCD fs 48 kHz 2 Hz - 22 kHz  
fs 44.1 kHz 2 Hz - 20 kHz  
CD/VCD fs 44.1 kHz 2 Hz - 20 kHz  
Distortion and Noise (1kHz) 0.003%

### TV STANDARD (PAL/50Hz) (NTSC/60Hz)

Number of lines 625 525  
Playback Multistandard (PAL/NTSC)

### CONNECTIONS

Y Output RCA (green)  
Pb/Cb Output RCA (blue)  
Pr/Cr Output RCA (red)  
SCART Euroconnector  
S-Video Output Mini DIN, 4 pins  
Video Output RCA  
Audio Output (L+R) RCA  
Digital Output 1 coaxial, 1 optical  
IEC60958 for CDDA / LPCM / MPEG1  
IEC61937 for MPEG 2, Dolby Digital and DTS

**GENERAL**

Dimensions (W x H x D)

217 x 108 x 346 (8-9/16" x 4-1/4" x 13-5/8")

Weight Approx. 2.6 Kg (5 lbs. 12 oz.)

Finish

Gold color G, E models

Silver color B, G, E models

Power Supply AC230V, 50Hz

Power Consumption 14W

Standby Power Consumption (reference data) 1W

**ACCESSORIES**

Remote Control x 1, Battery x 2, System Control Cable x 1,  
Audio Pin Cable x 1, Video Pin Cable x 1

*\* Specifications subject to change without prior notice.*

**B** ..... British model

**G** ..... European model

**E** ..... South European model



Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

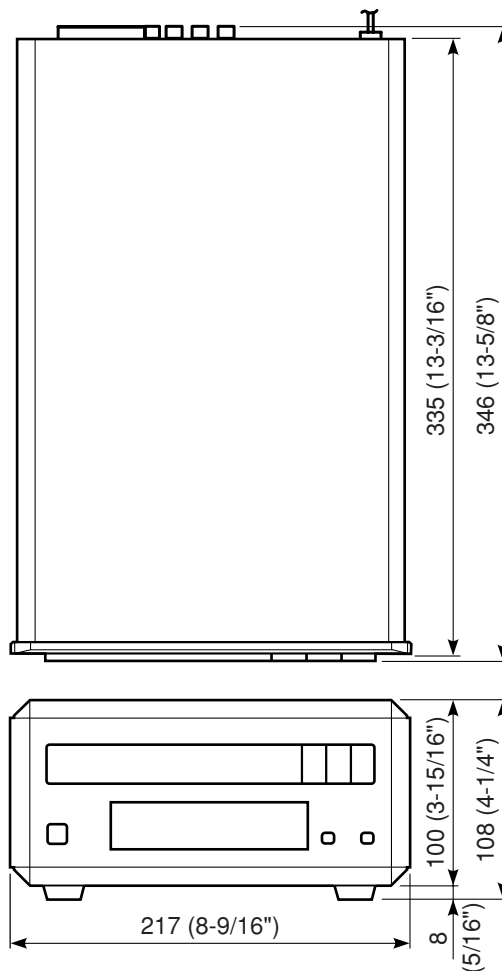


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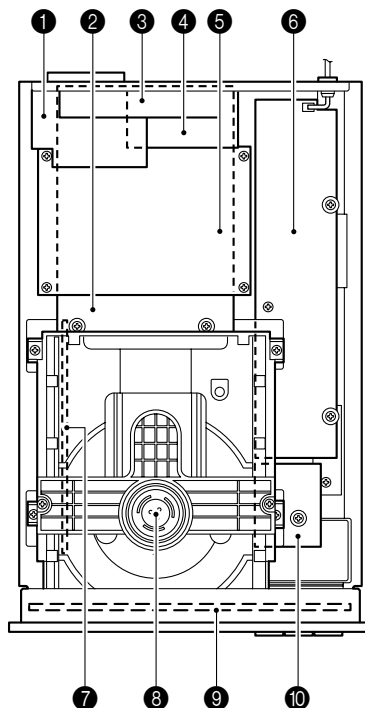
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**● DIMENSIONS**



Unit: mm (inch)

**■ INTERNAL VIEW**



- ① MAIN (2) P.C.B.
- ② MAIN (5) P.C.B.
- ③ MAIN (3) P.C.B.
- ④ MAIN (4) P.C.B.
- ⑤ MONO BOARD
- ⑥ POWER SUPPLY UNIT
- ⑦ MAIN (7) P.C.B.
- ⑧ DVD MECHANISM UNIT
- ⑨ MAIN (1) P.C.B.
- ⑩ MAIN (6) P.C.B.

DVD-E600MK2

## DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

Disconnect the power cable from the AC outlet.

### 1. Removal of Top Cover

- a. Remove 4 screws (①), 4 screws (②). (Fig. 1)
- b. Slide the Top Cover rearward to remove it.

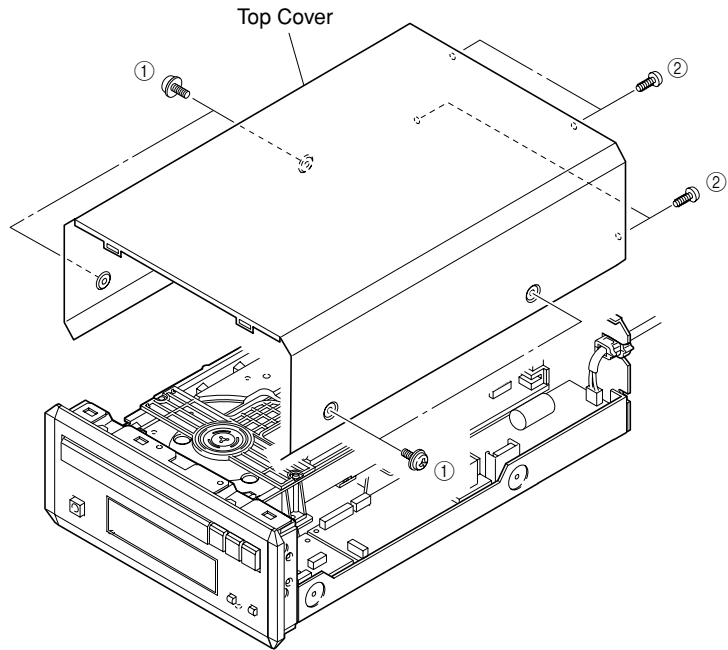


Fig. 1

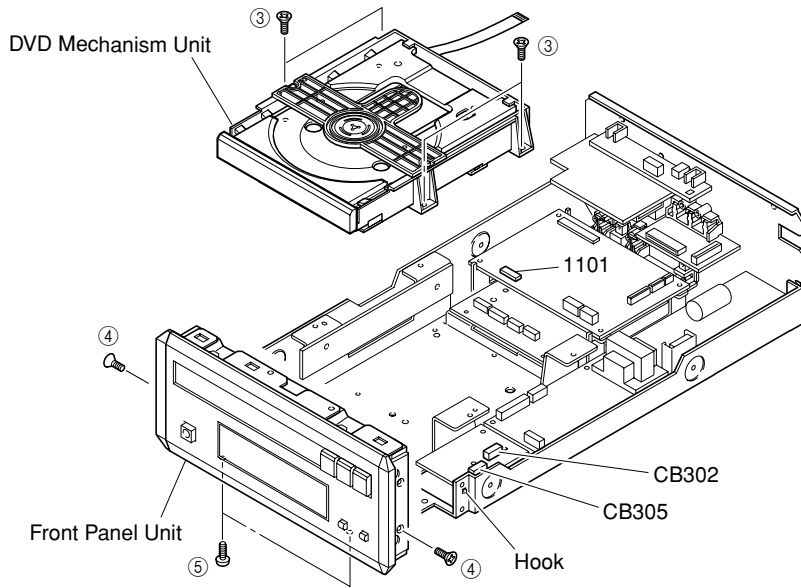


Fig. 2

### 2. Removal of DVD Mechanism Unit

- a. Remove 4 screws (③). (Fig. 2)
- b. Remove a connectors (1101, CB302, CB305). (Fig. 2)
- c. Remove the DVD Mechanism Unit backward.

### 3. Removal of Front Panel Unit

- a. Remove 2 screws (④), 2 screws (⑤). (Fig. 2)
- b. Remove a connectors (CB16, CB17). (Fig. 3)
- c. Release 2 hooks and remove the Front Panel Unit by pulling it forward. (Fig. 2)



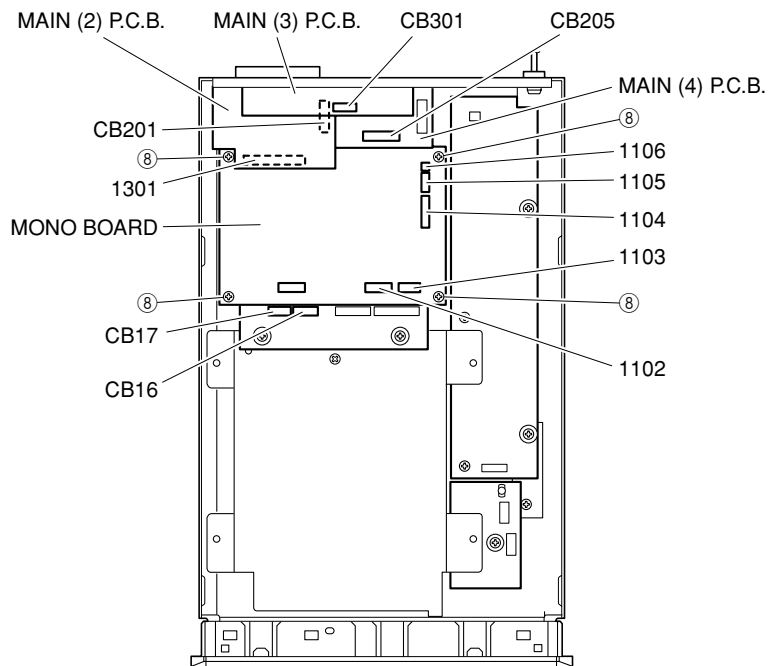


Fig. 3

**4. Removal of MAIN (3) P.C.B.**

- a. Remove 2 screws (⑥). (Fig. 4)
- b. Remove a connector (CB301). (Fig. 3)
- c. Remove the MAIN (3) P.C.B..

**5. Removal of MAIN (2) and MAIN (4) P.C.B.**

- a. Remove 4 screws (⑦). (Fig. 4)
- b. Remove a connector (CB205). (Fig. 3)
- c. Remove the MAIN (2) and MAIN (4) P.C.B..

**6. Removal of MONO BOARD**

- a. Remove 4 screws (⑧). (Fig. 3)
- b. Remove a connectors (1102~1106, 1301). (Fig. 3)
- c. Remove the MONO P.C.B..

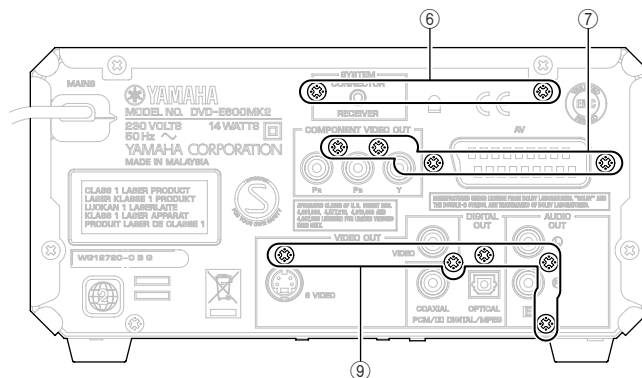
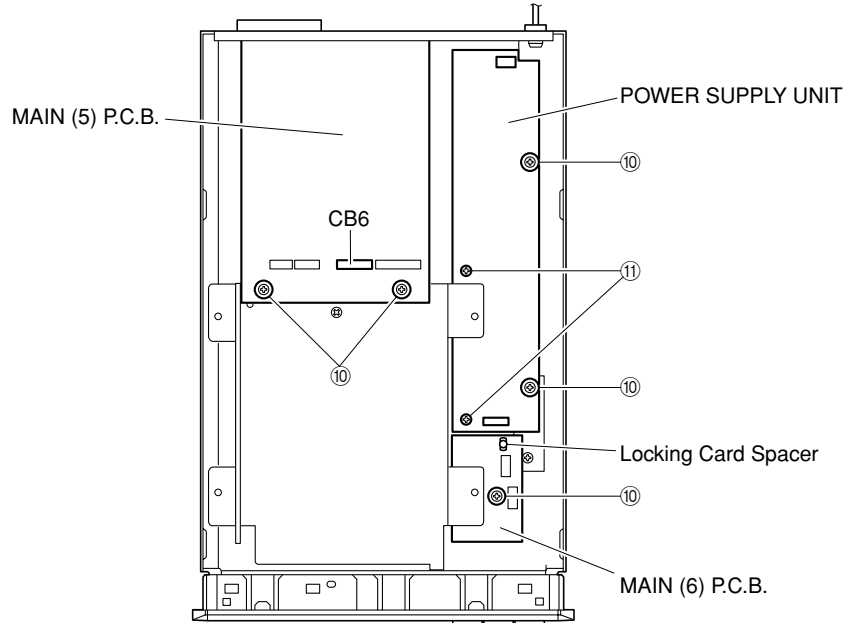


Fig. 4

**7. Removal of MAIN (5), MAIN (6) P.C.B. and POWER SUPPLY UNIT**

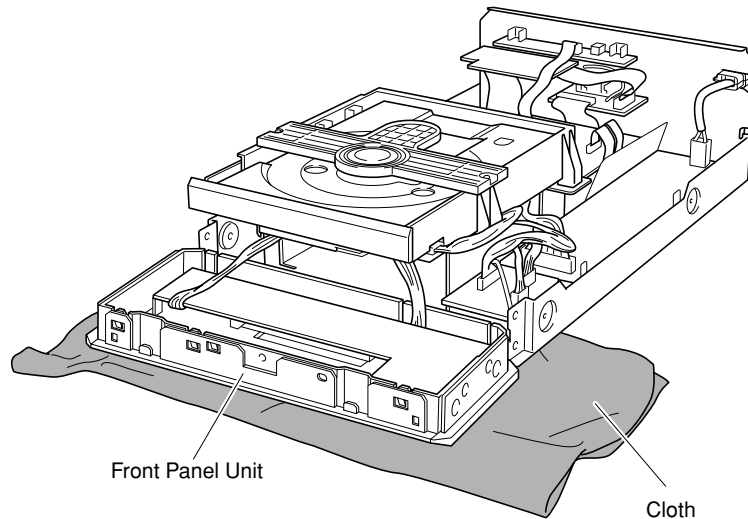
- a. Remove 5 screws (9). (Fig. 4)
- b. Remove 5 screws (10). (Fig. 5)
- c. Remove 2 screws (11). (Fig. 5)
- d. Loosen 1 Locking Card Spacer. (Fig. 5)
- e. Remove the MAIN (5), MAIN (6) P.C.B. and POWER SUPPLY UNIT.



**Fig. 5**

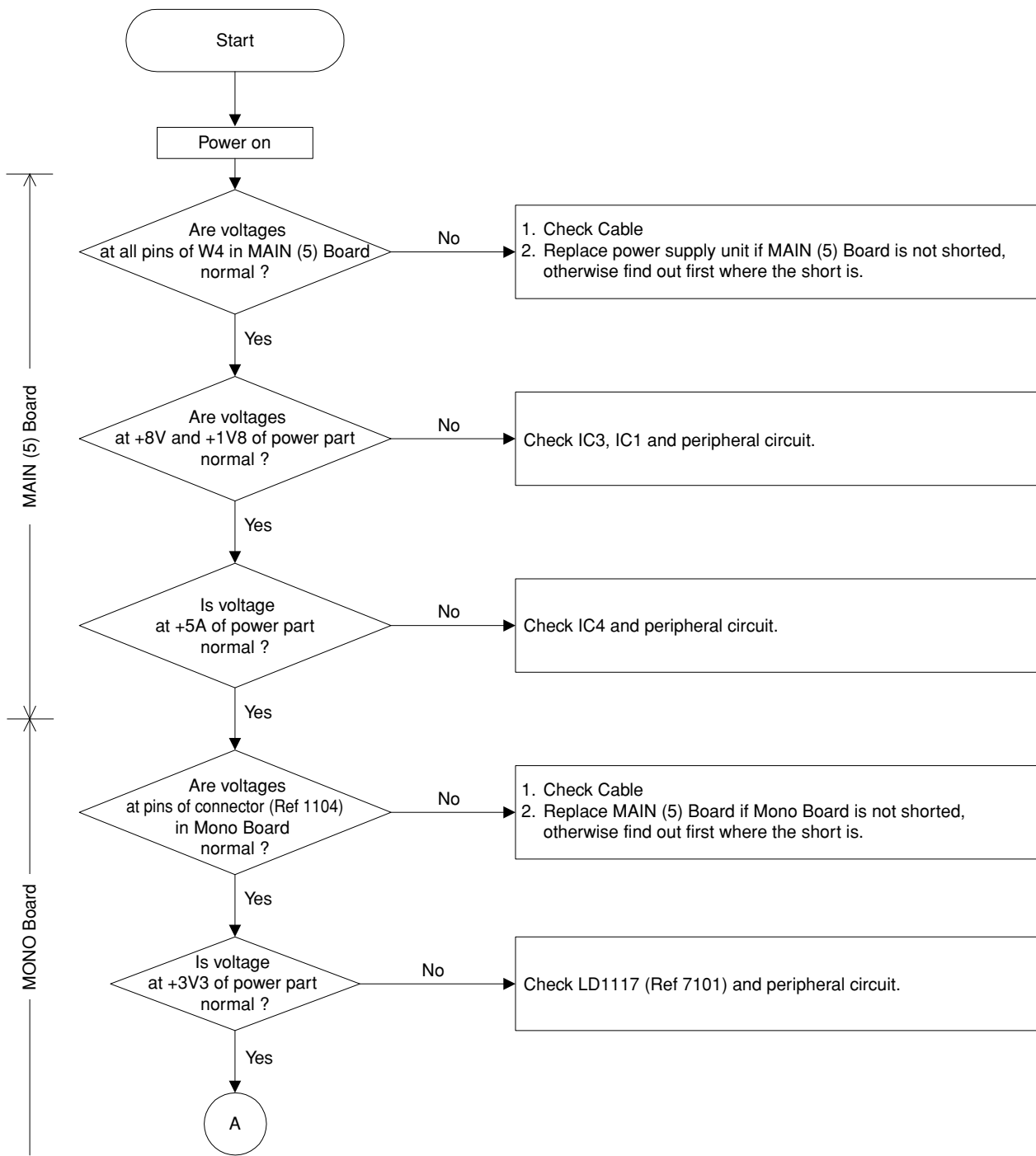
**When checking the P.C.B.**

- Reconnect all cables (connectors) that have been disconnected.
- When connecting the flat cable, use care for the polarity.

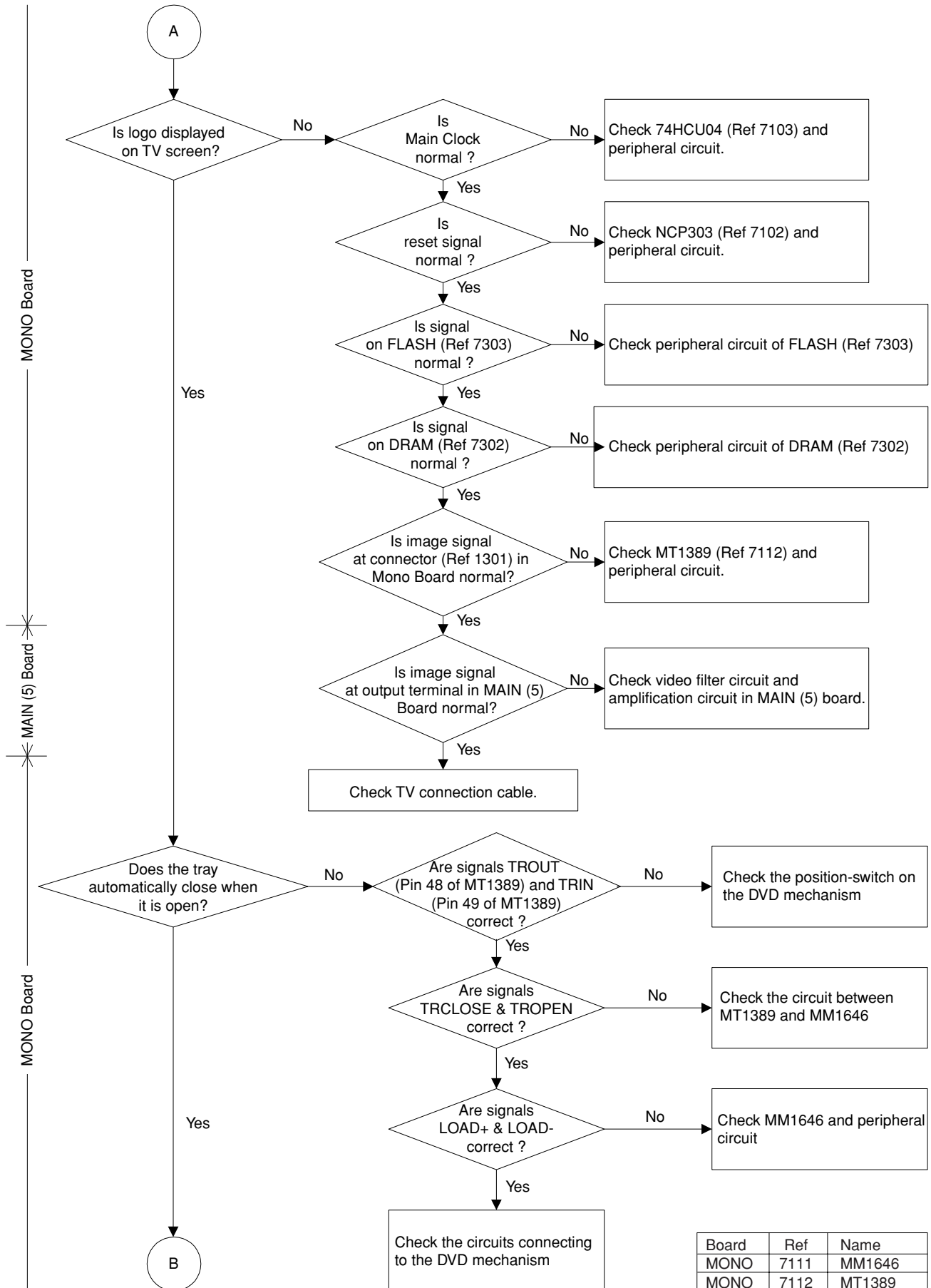


**Fig. 6**

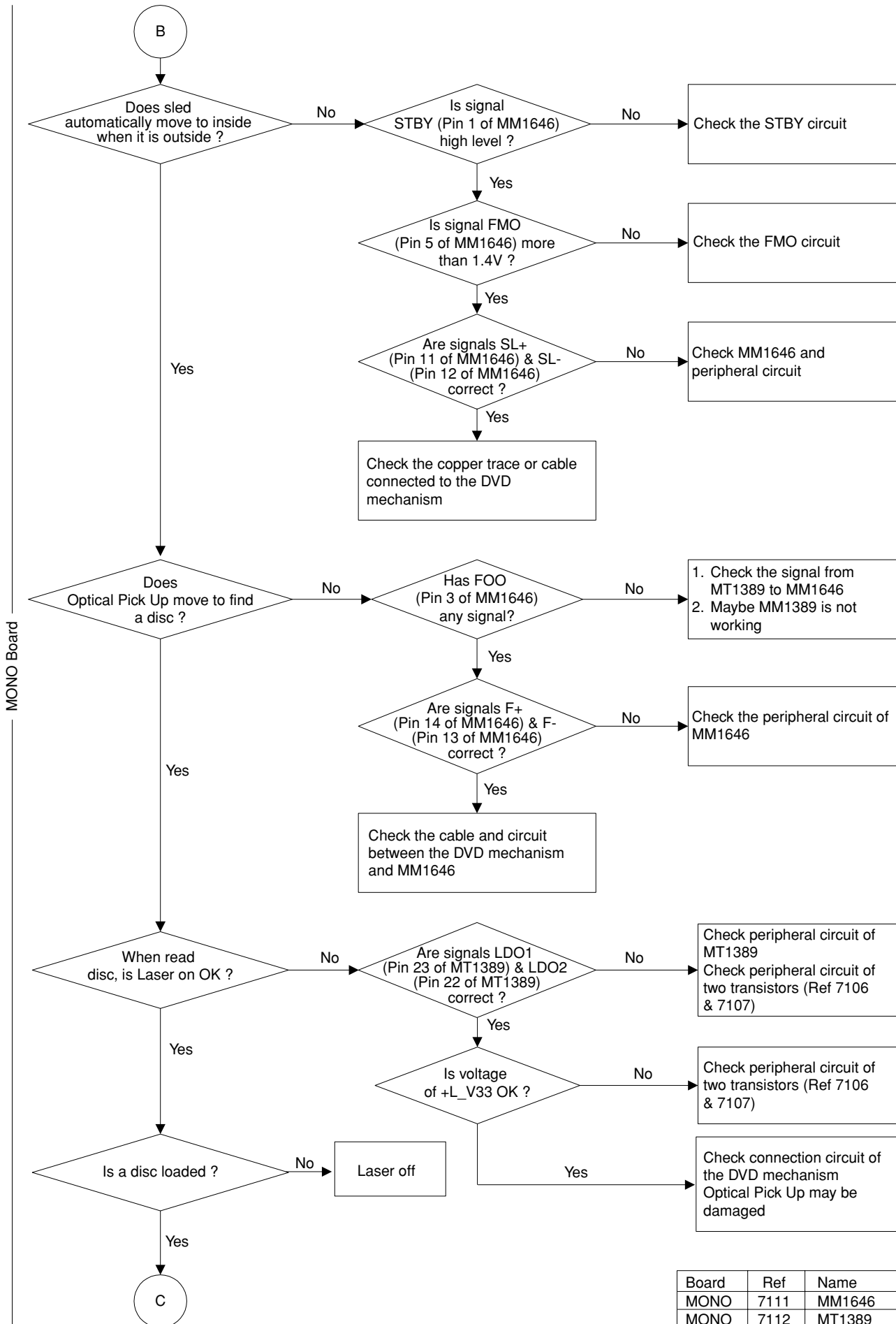
# MAINTENANCE FLOW CHART



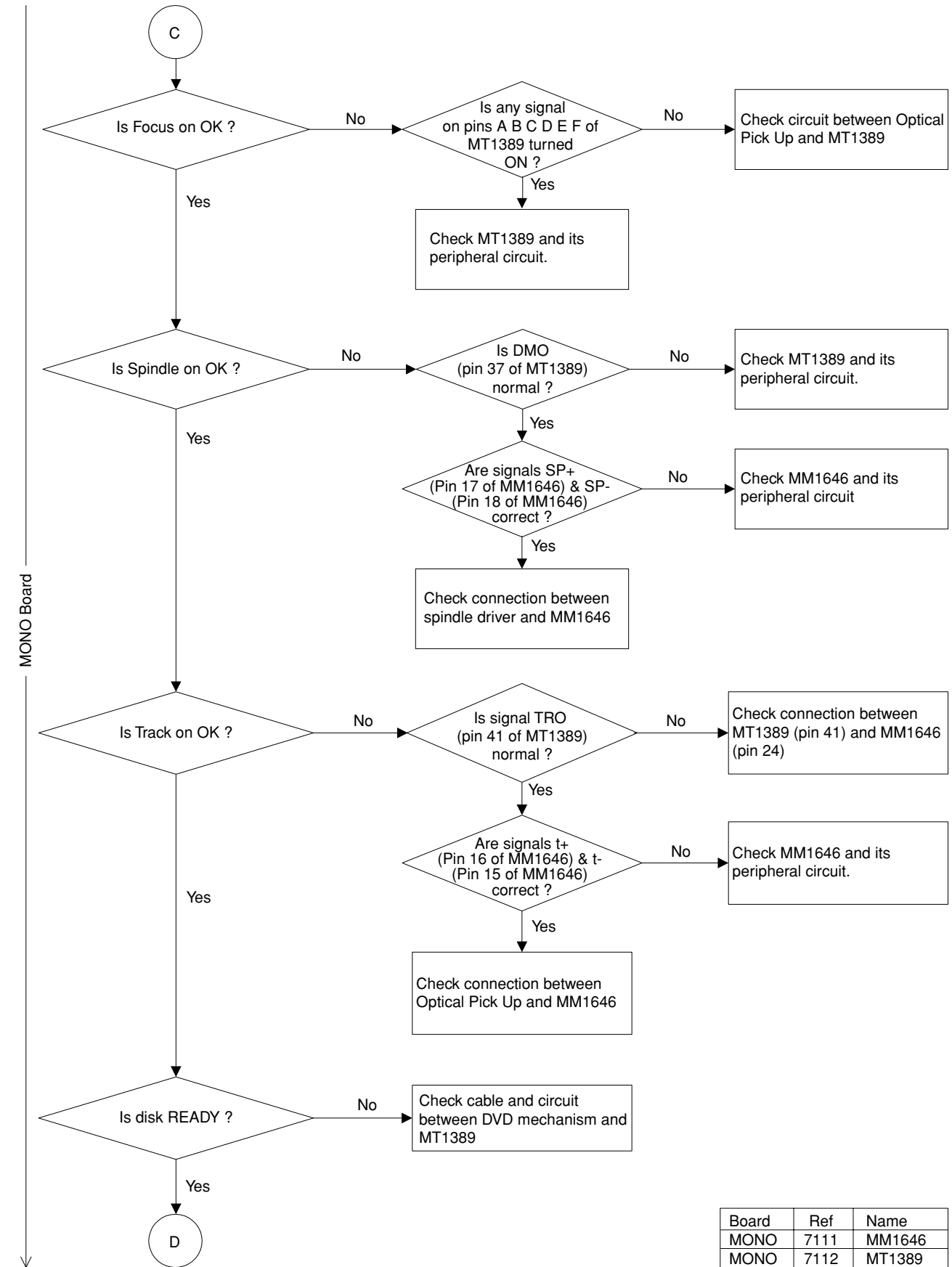
DVD-E600MK2



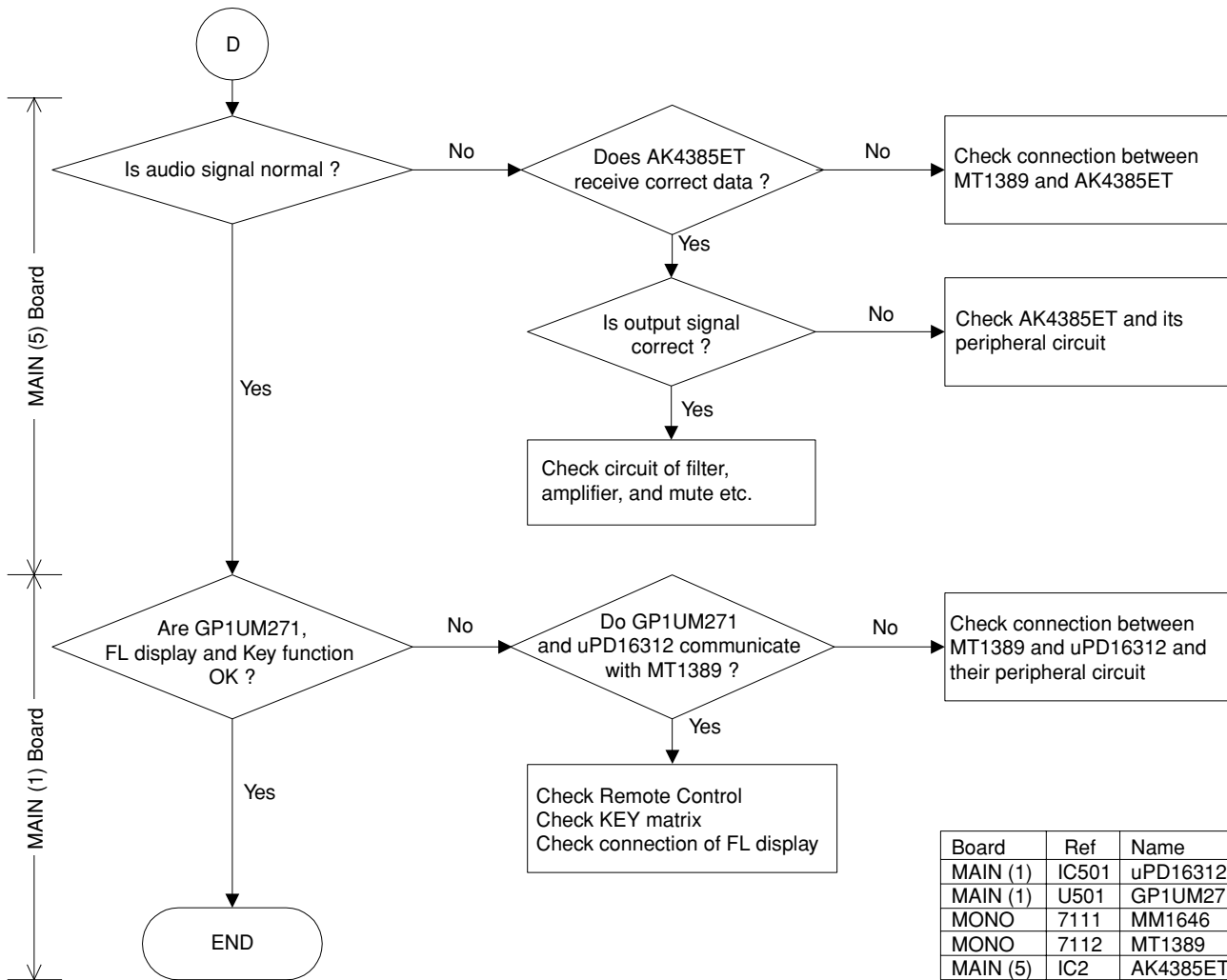
Board	Ref	Name
MONO	7111	MM1646
MONO	7112	MT1389



Board	Ref	Name
MONO	7111	MM1646
MONO	7112	MT1389



Board	Ref	Name
MONO	7111	MM1646
MONO	7112	MT1389



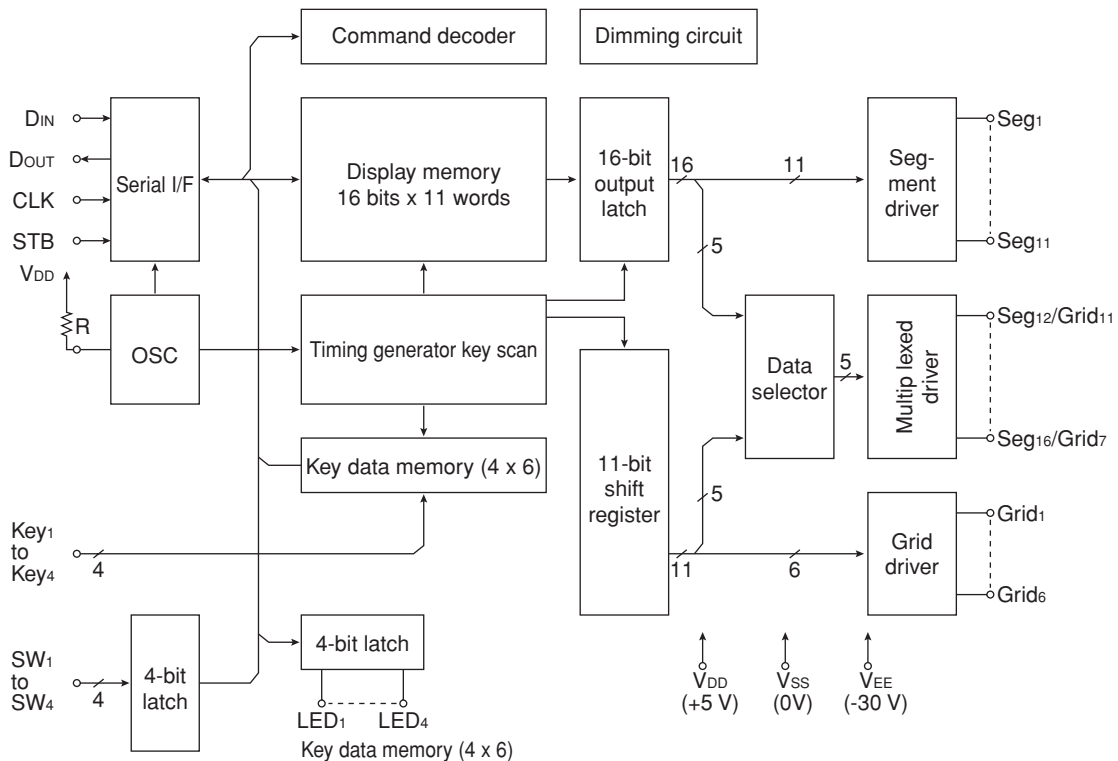
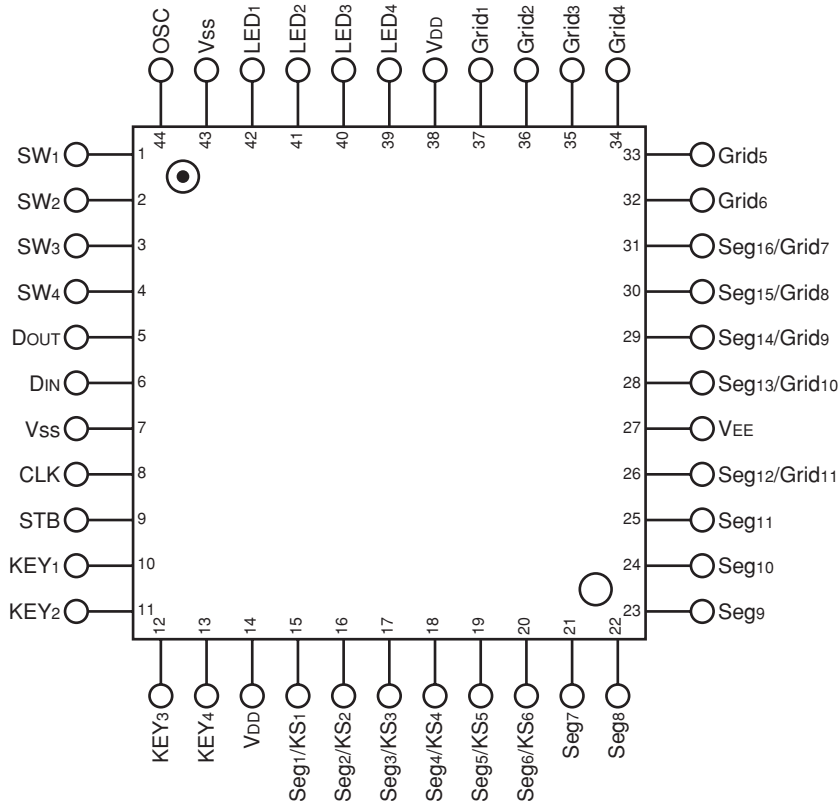
Board	Ref	Name
MAIN (1)	IC501	uPD16312
MAIN (1)	U501	GP1UM271
MONO	7111	MM1646
MONO	7112	MT1389
MAIN (5)	IC2	AK4385ET

DVD-E600MK2

# IC DATA

**IC501:**  $\mu$ PD16312GB-3B4 [MAIN (1) P.C.B.]  
8-bit Microprocessor

DVD-E600MK2





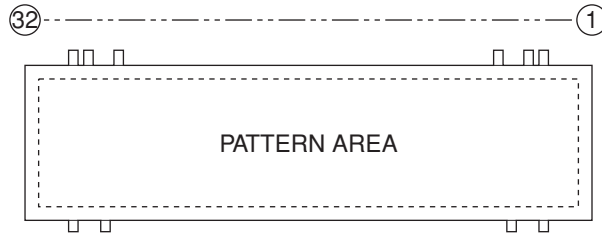
IC501:  $\mu$ PD16312GB-3B4 [MAIN (1) P.C.B.]

8-bit Microprocessor

No.	Name	Symbol	Description
1	Switch input	SW1	These pins constitute a 4-bit general-purpose input port.
2		SW2	
3		SW3	
4		SW4	
5	Data output	DOUT	Output serial data at the falling edge of the shift clock, starting from low order bit. This is N-ch open-drain output pin.
6	Data input	DIN	Input serial data at rising edge of shift clock, starting from the low order bit.
7	Logic ground	VSS	Connect this pin to system GND.
8	Clock input	CLK	Reads serial data at the rising edge, and outputs data at the falling edge.
9	Strobe	STB	Initializes serial interface at the rising or falling edge of the $\mu$ PD16312. It then waits for reception of a command. Data input after STB has fallen is processed as a command. While command data is processed, current processing is stopped, and the serial interface is initialized. While STB is high, CLK is ignored.
10	Key data input	KEY1	Data input to these pins is latched at the end of the display cycle.
11		KEY2	
12		KEY3	
13		KEY4	
14	Logic power	VDD	5 V $\pm$ 10 %
15	High-voltage output	Seg1/KS1	Segment output pins (Dual function as key source)
16		Seg2/KS2	
17		Seg3/KS3	
18		Seg4/KS4	
19		Seg5/KS5	
20		Seg6/KS6	
21	High-voltage output (segment)	Seg7	Segment output pins
22		Seg8	
23		Seg9	
24		Seg10	
25		Seg11	
26	High-voltage output (segment/grid)	Seg12/Grid11	These pins are selectable for segment or grid driving.
27	Pull-down level	VEE	VDD - 35 V max.
28	High-voltage output (segment/grid)	Seg13/Grid10	These pins are selectable for segment or grid driving.
29		Seg14/Grid9	
30		Seg15/Grid8	
31		Seg16/Grid7	
32	High-voltage output (grid)	Grid6	Grid output pins
33		Grid5	
34		Grid4	
35		Grid3	
36		Grid2	
37		Grid1	
38	Logic power	VDD	5 V $\pm$ 10 %
39	LED output	LED4	CMOS output. +20 mA max.
40		LED3	
41		LED2	
42		LED1	
43	Logic ground	VSS	Connect this pin to system GND.
44	Oscillator pin	OSC	Connect resistor to this pin to determine the oscillation frequency to this pin.

## ■ DISPLAY DATA

● V1 : 7-BT-299GNK (WD602800)

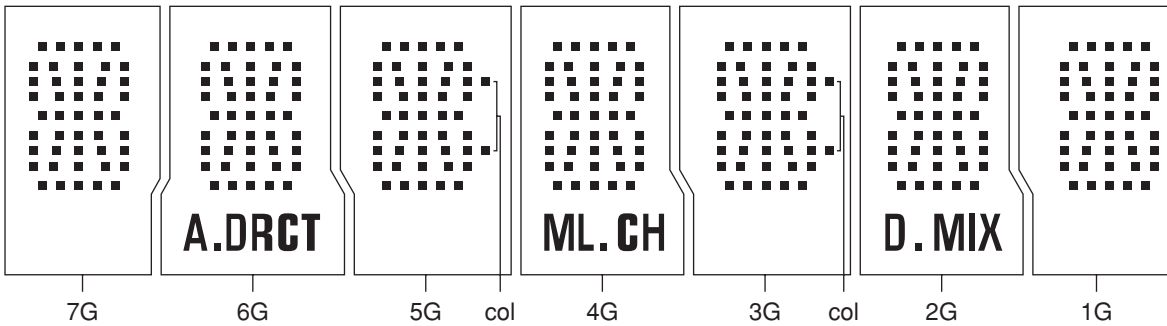


### ● PIN CONNECTION

PIN NO.	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	NP	1G	2G	3G	4G	5G	6G	7G	NP	NP	NP	NP	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	F1	F1

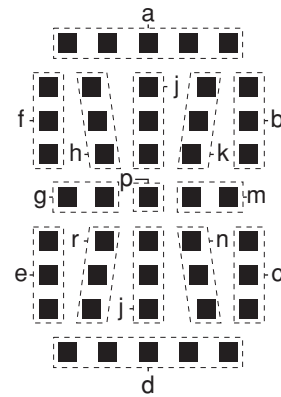
NOTE : 1) F1, F2 ..... Filament 2) NP ..... No pin 3) 1G ~ 7G ..... Grid

### ● GRID ASSIGNMENT



### ● ANODE CONNECTION

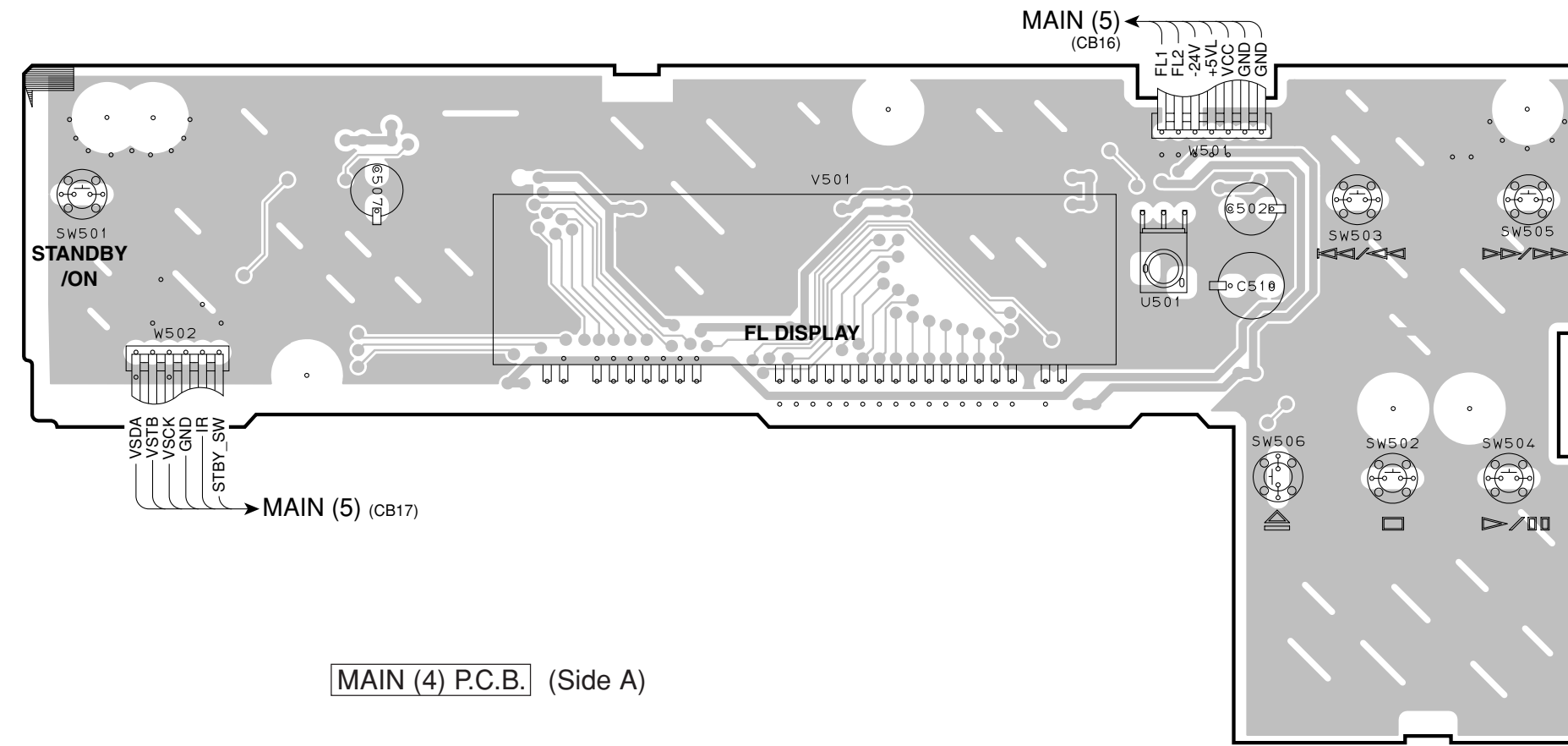
	7G	6G	5G	4G	3G	2G	1G
P1				a			
P2				j			
P3				h			
P4				k			
P5				b			
P6				f			
P7				m			
P8				g			
P9				c			
P10				e			
P11				r			
P12				n			
P13				d			
P14	-	A.DRCT	col	ML.CH	col	D.MIX	-
P15				p			



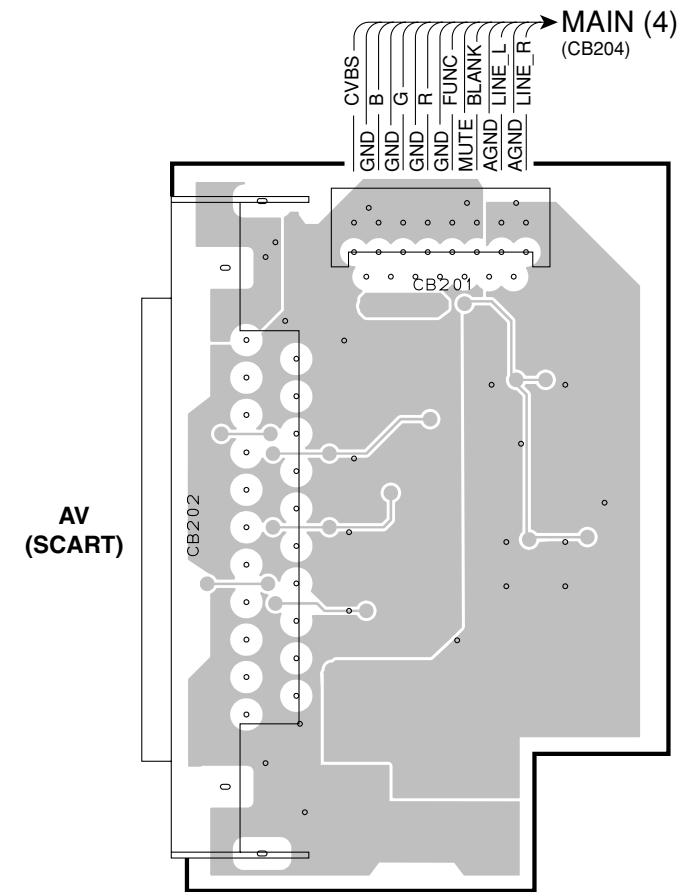


PRINTED CIRCUIT BOARD (Foil side)

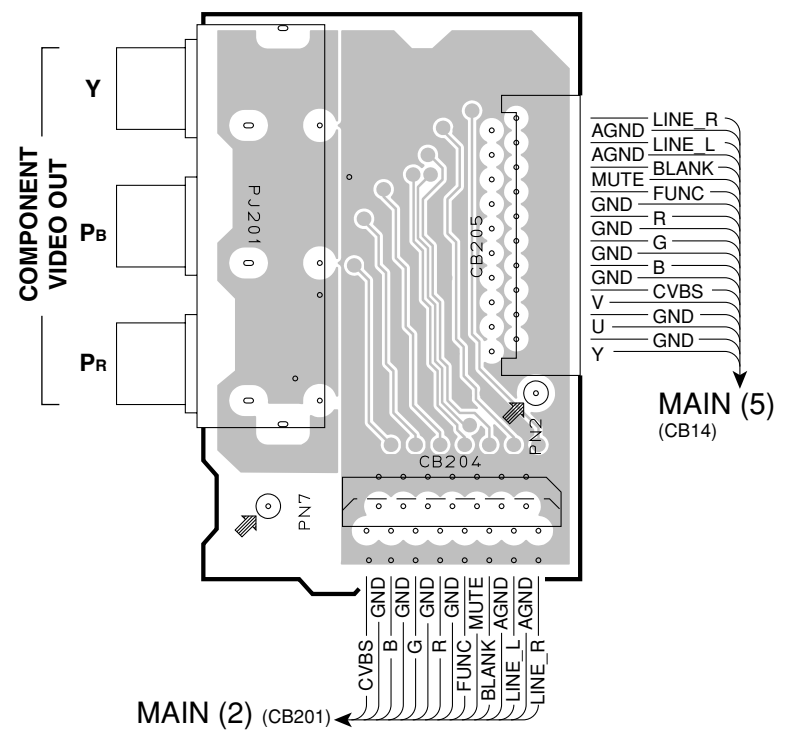
MAIN (1) P.C.B. (Side A)



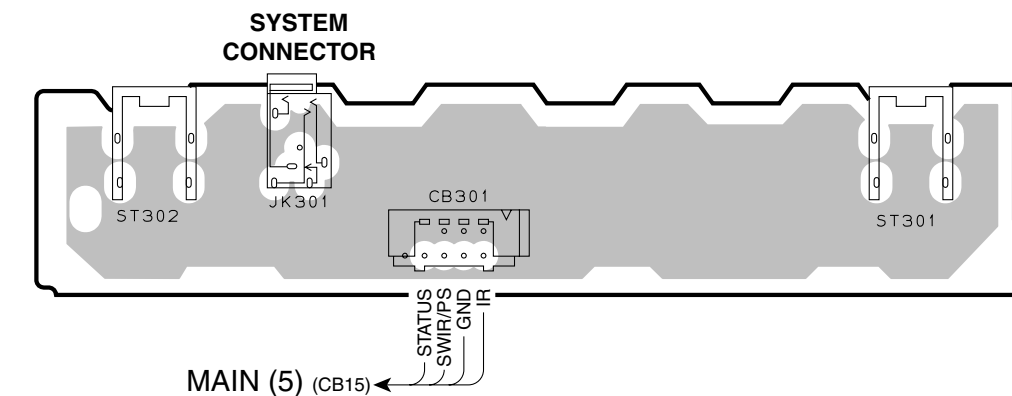
MAIN (2) P.C.B. (Side A)



MAIN (4) P.C.B. (Side A)

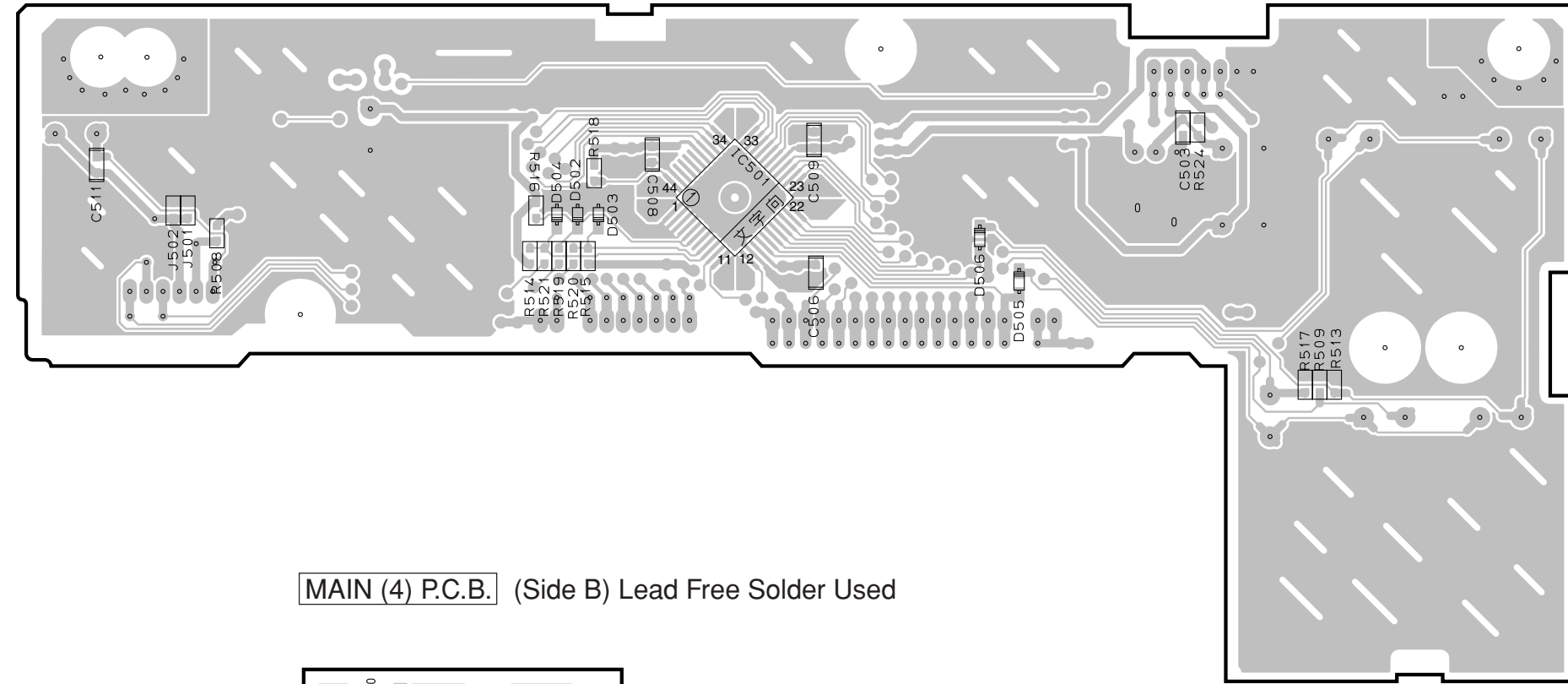


MAIN (3) P.C.B. (Side A)

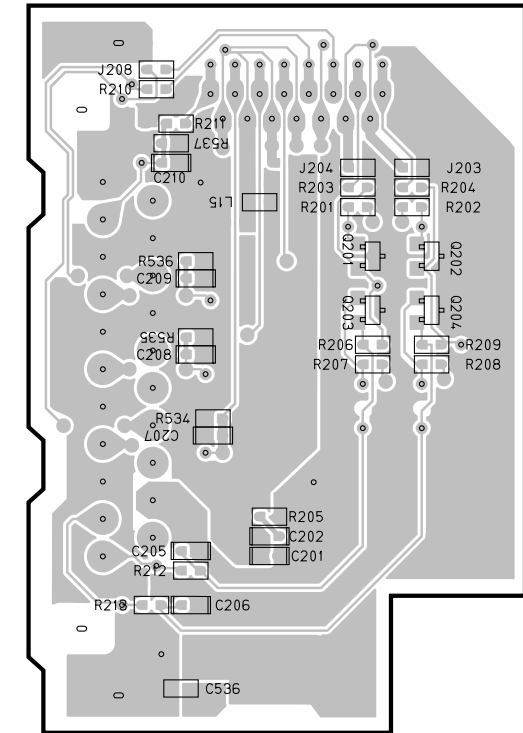


1 ■ PRINTED CIRCUIT BOARD (Foil side)

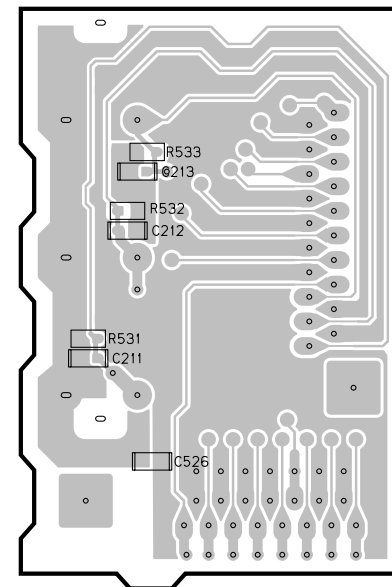
MAIN (1) P.C.B. (Side B) Lead Free Solder Used



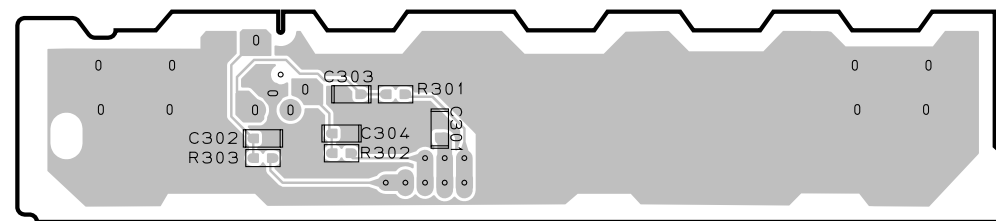
MAIN (2) P.C.B. (Side B) Lead Free Solder Used



MAIN (4) P.C.B. (Side B) Lead Free Solder Used



MAIN (3) P.C.B. (Side B) Lead Free Solder Used

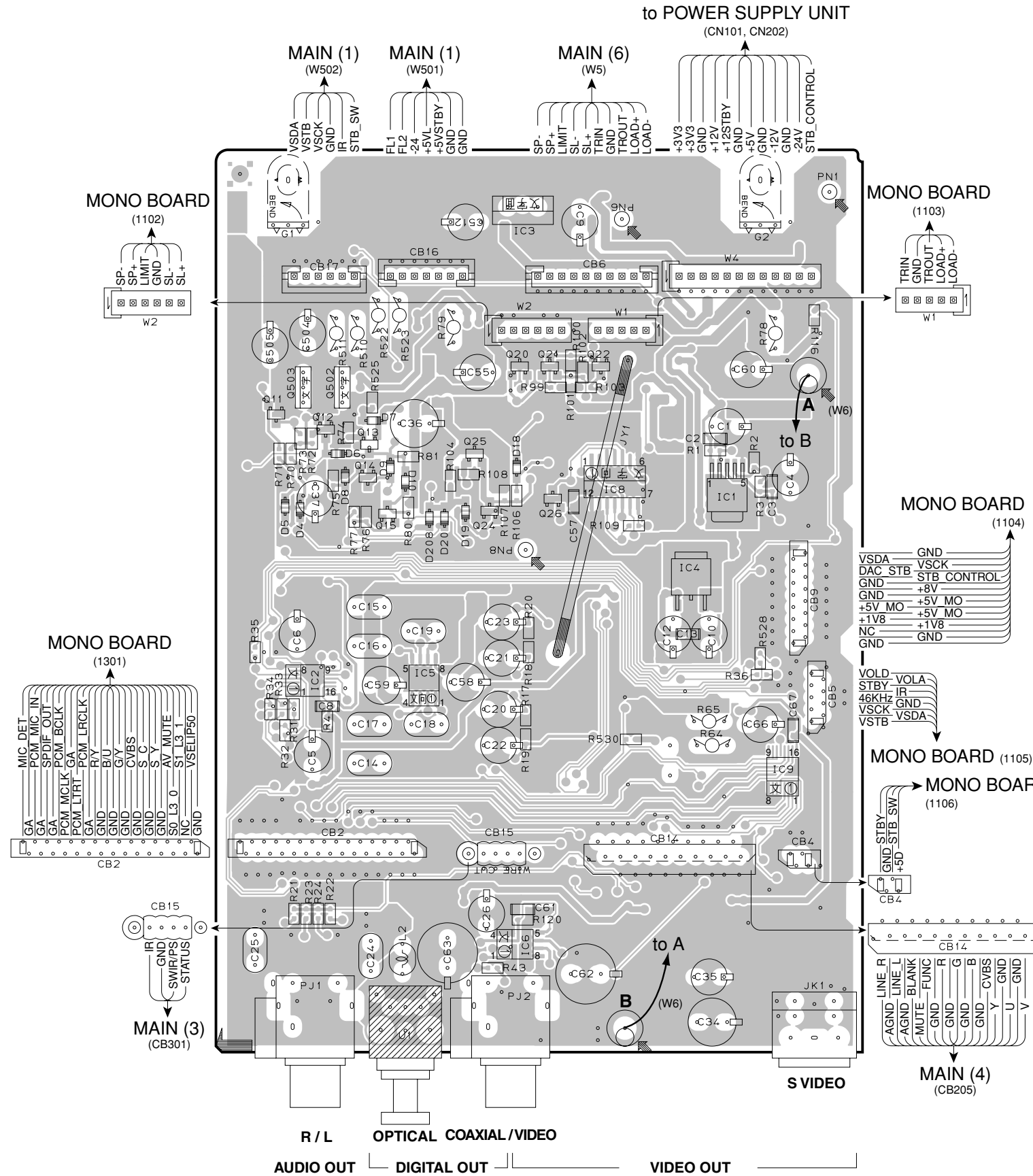


• Semiconductor Location

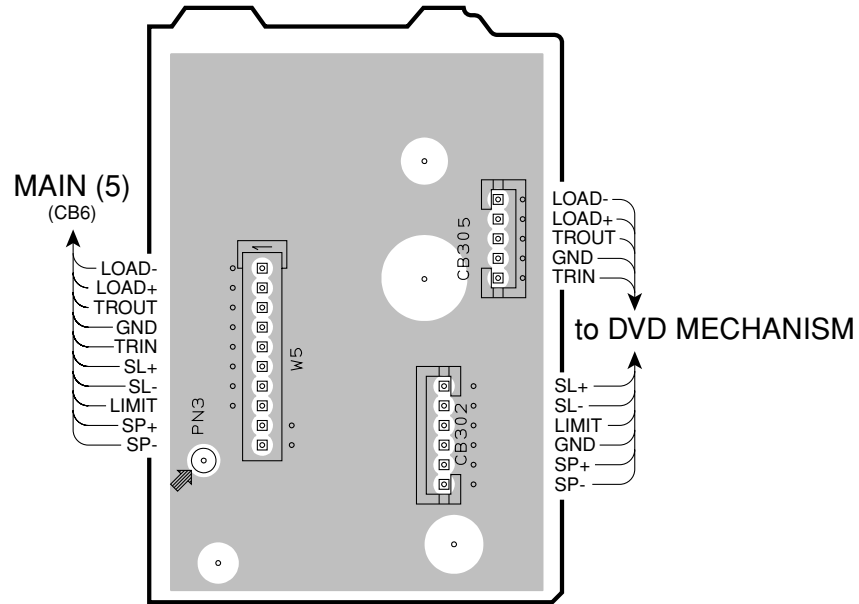
Ref no.	Location
D502	C3
D503	C3
D504	C3
D505	E3
D506	E3
IC501	D3
Q201	I3
Q202	I3
Q203	I3
Q204	I3

**PRINTED CIRCUIT BOARD (Foil side)**

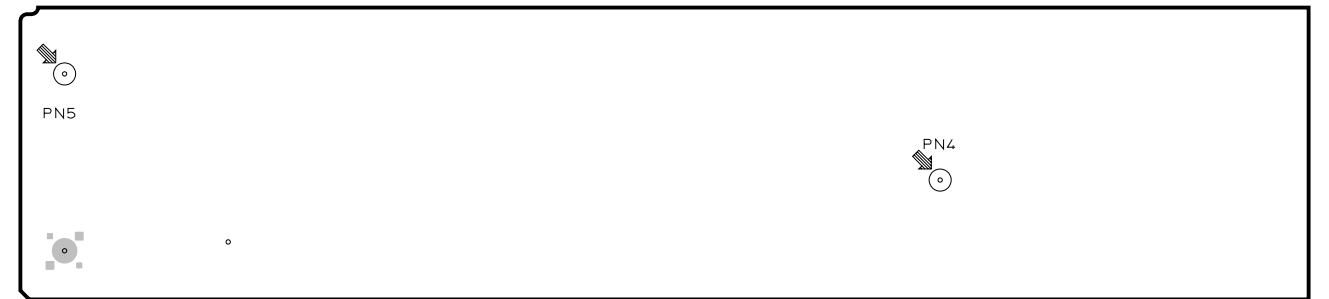
MAIN (5) P.C.B. (Side A)



MAIN (6) P.C.B. (Side A)



MAIN (7) P.C.B. (Side A)

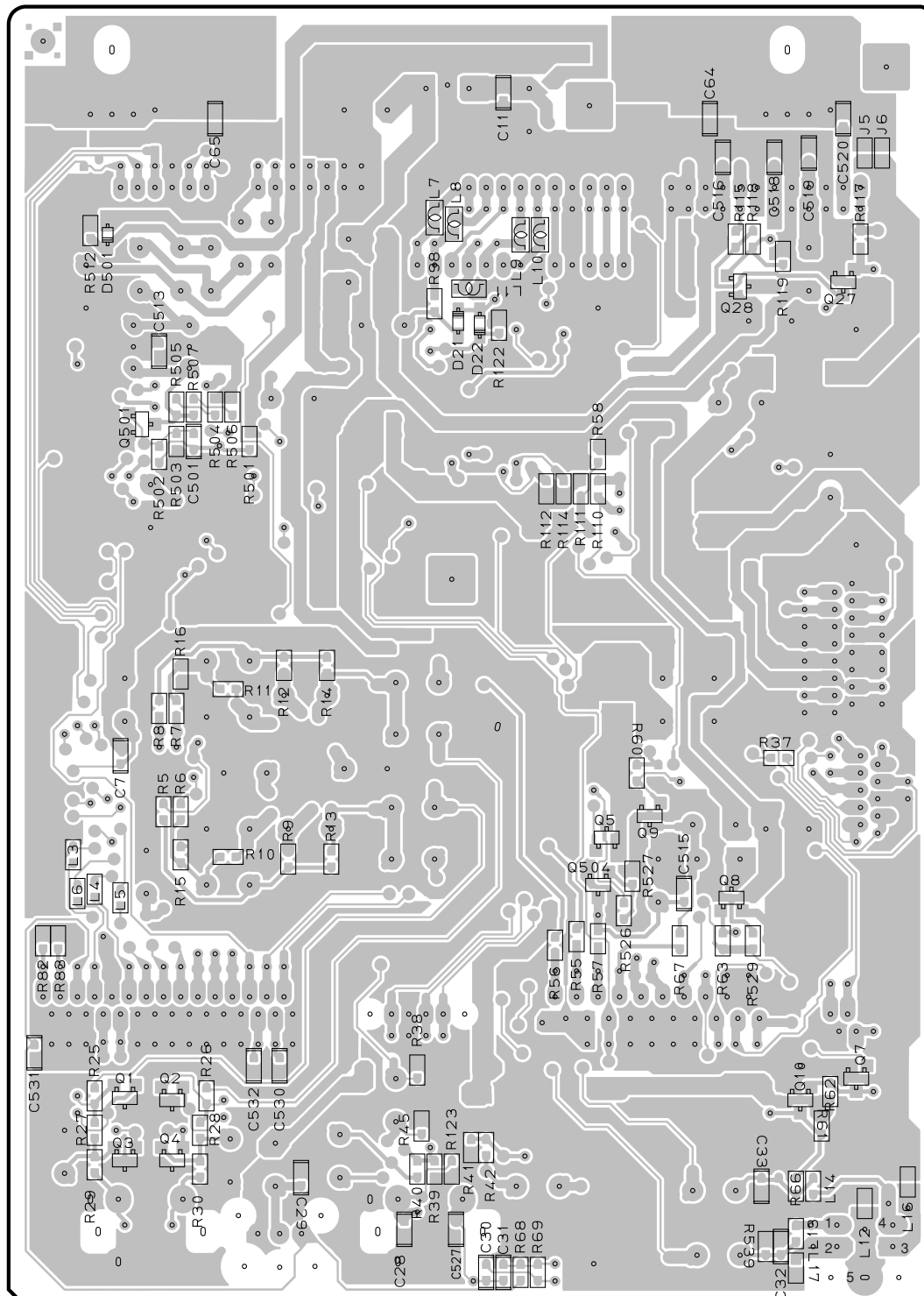


**Semiconductor Location**

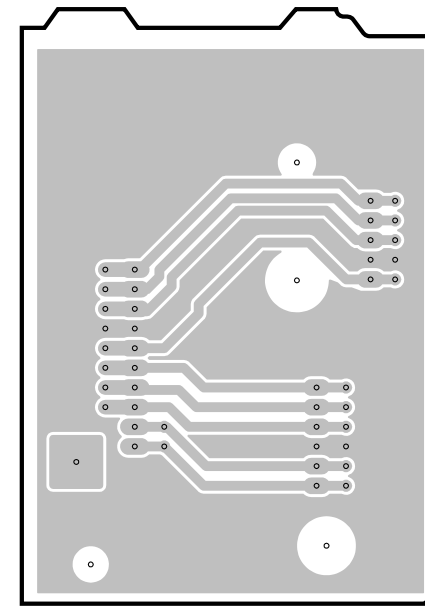
Ref no.	Location	Ref no.	Location	Ref no.	Location	Ref no.	Location
D4	B4	D19	C4	IC6	C6	Q20	C3
D5	B4	D20	C4	IC8	D4	Q21	C3
D6	B4	D208	C4	IC9	D9	Q22	D3
D7	B3	IC1	D4	Q11	B3	Q24	C4
D8	B4	IC2	B5	Q12	B4	Q25	C4
D9	C4	IC3	C2	Q13	B4	Q26	C4
D10	C4	IC4	D4	Q14	B4	Q502	B3
D18	C4	IC5	C5	Q15	C4	Q503	B3

1 ■ PRINTED CIRCUIT BOARD (Foil side)

MAIN (5) P.C.B. (Side B) Lead Free Solder Used



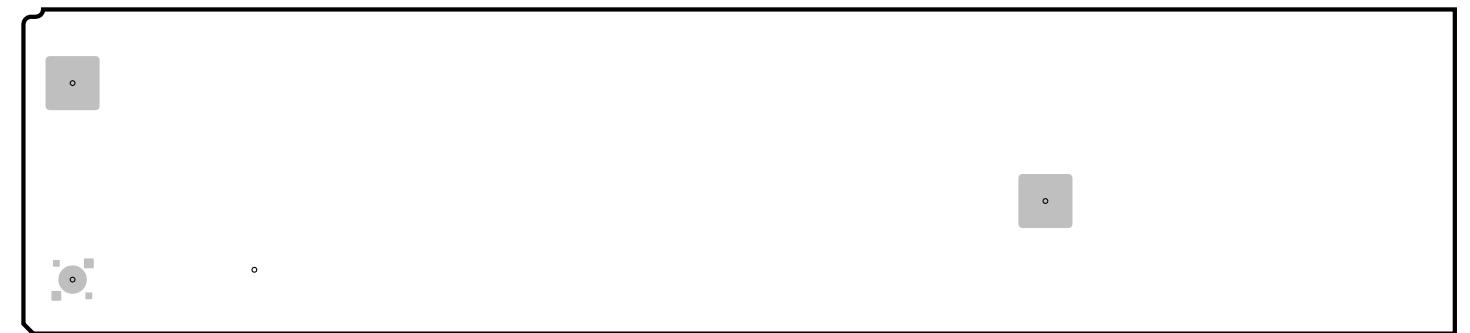
MAIN (6) P.C.B. (Side B) Lead Free Solder Used



• Semiconductor Location

Ref no.	Location	Ref no.	Location
D21	C3	Q7	D6
D22	C3	Q8	D5
D501	B3	Q9	D5
Q1	B6	Q10	D6
Q2	B6	Q27	D3
Q3	B6	Q28	D3
Q4	B6	Q501	B4
Q5	C5	Q504	C5

MAIN (7) P.C.B. (Side B) Lead Free Solder Used



1  
2  
3  
4  
5  
6  
7



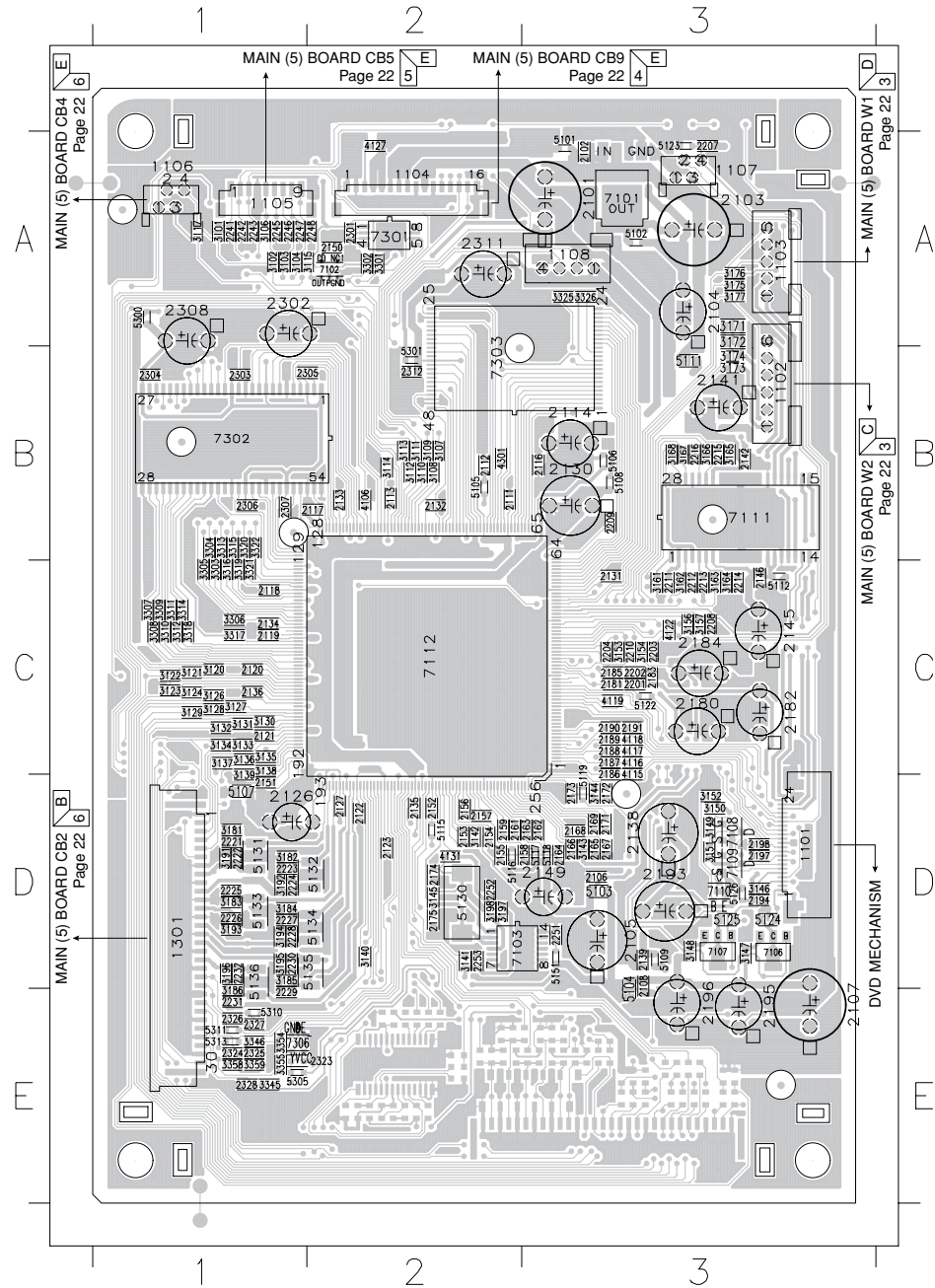
■ PRINTED CIRCUIT BOARD (Foil side)

FOR INFORMATION ONLY (NO REPLACEMENT COMPONENT PARTS WILL BE AVAILABLE)

The first digit of a component indicates the component type.

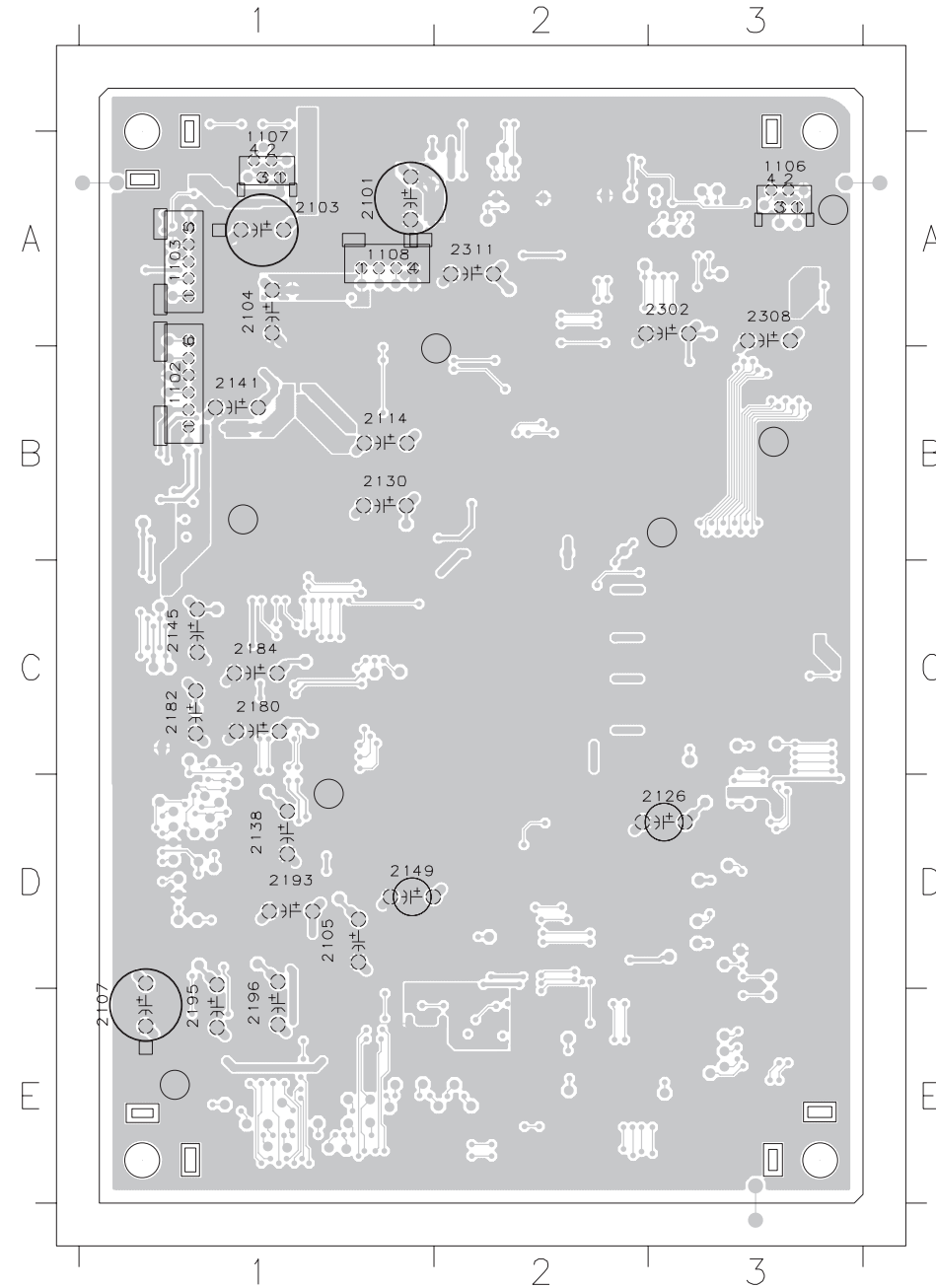
1xxx : Connector    3xxx : Resistor    5xxx : Coil    7xxx : IC, Transistor, FET  
 2xxx : Capacitor    4xxx : SMD jumper    6xxx : Diode    9xxx : Wire jumper

MONO Board-Top View



1101	D3	2173	D3	2312	B2	3171	A3	5105	B2
1102	B3	2174	D2	2323	E1	3172	A3	5106	B3
1103	A3	2175	D2	2324	E1	3173	B3	5107	D1
1104	A2	2180	C3	2325	E1	3174	B3	5108	B3
1105	A1	2181	C3	2326	E1	3175	A3	5109	D3
1106	A1	2182	C3	2327	E1	3176	A3	5111	B3
1107	A3	2183	C3	2328	E1	3177	A3	5112	C3
1108	A3	2184	C3	3101	A1	3181	D1	5115	D2
1301	D1	2185	C3	3102	A1	3182	D1	5116	D2
2101	A3	2186	C3	3103	A1	3183	D1	5117	D3
2102	A3	2187	C3	3104	A1	3184	D1	5118	D3
2103	A3	2188	C3	3106	A1	3185	D1	5119	D3
2104	A3	2189	C3	3107	B2	3186	E1	5122	C3
2105	D3	2190	C3	3108	B2	3191	D1	5123	A3
2106	D3	2191	C3	3109	B2	3192	D1	5124	D3
2107	E3	2193	D3	3110	B2	3193	D1	5125	D3
2108	D3	2194	D3	3111	B2	3194	D1	5126	D3
2111	B2	2195	E3	3112	B2	3195	D1	5130	D2
2112	B2	2196	E3	3113	B2	3196	D1	5131	D1
2113	B2	2197	D3	3114	B2	3197	D2	5132	D2
2114	B3	2198	D3	3115	A2	3198	D2	5133	D1
2116	B3	2201	C3	3117	A1	3301	A2	5134	D2
2117	B2	2202	C3	3120	C1	3302	A2	5135	D2
2118	C1	2203	C3	3121	C1	3303	C1	5136	D1
2119	C1	2204	C3	3122	C1	3304	B1	5151	D3
2120	C1	2207	A3	3123	C1	3305	C1	5300	A1
2121	C1	2208	C3	3124	C1	3306	C1	5301	B2
2122	D2	2209	B3	3126	C1	3307	C1	5305	E1
2123	D2	2210	C3	3127	C1	3308	C1	5310	E1
2126	D1	2211	C3	3128	C1	3309	C1	5311	E1
2127	D2	2212	C3	3129	C1	3310	C1	5313	E1
2130	B3	2213	C3	3130	C1	3311	C1	7101	A3
2131	C3	2214	C3	3131	C1	3312	C1	7102	A2
2132	B2	2215	B3	3132	C1	3313	B1	7103	D2
2133	B2	2216	B3	3133	C1	3314	C1	7106	D3
2134	C1	2221	D1	3134	C1	3315	B1	7107	D3
2135	D2	2222	D1	3135	C1	3316	C1	7108	D3
2136	C1	2223	D1	3136	C1	3317	C1	7109	D3
2138	D3	2224	D1	3137	C1	3318	C1	7110	D3
2139	D3	2225	D1	3138	C1	3319	C1	7111	B3
2141	B3	2226	D1	3139	D1	3320	B1	7112	C2
2142	B3	2227	D1	3140	D2	3321	C1	7301	A2
2145	C3	2228	D1	3141	D2	3322	B1	7302	B1
2146	C3	2229	E1	3142	D2	3325	A3	7303	B2
2149	D3	2230	D1	3143	D3	3326	A3	7306	E1
2150	A2	2231	E1	3144	D3	3345	E1		
2151	D1	2232	D1	3145	D2	3346	E1		
2152	D2	2241	A1	3146	D3	3354	E1		
2153	D2	2242	A1	3147	D3	3355	E1		
2154	D2	2243	A1	3148	D3	3358	E1		
2155	D2	2245	A1	3149	D3	3359	E1		
2156	D2	2246	A1	3150	D3	3386	E3		
2157	D2	2247	A1	3151	D3	4106	B2		
2158	D3	2248	A2	3152	D3	4115	C3		
2159	D2	2251	D3	3153	C3	4116	C3		
2161	D2	2252	D2	3154	C3	4117	C3		
2162	D3	2253	D2	3156	C3	4118	C3		
2163	D3	2301	A2	3157	C3	4119	C3		
2164	D3	2302	A1	3161	C3	4122	C3		
2165	D3	2303	B1	3162	C3	4127	A2		
2166	D3	2304	B1	3163	C3	4131	D2		
2167	D3	2305	B2	3164	C3	4301	B2		
2168	D3	2306	B1	3165	B3	5101	A3		
2169	D3	2307	B1	3166	B3	5102	A3		
2171	D3	2308	A1	3167	B3	5103	D3		
2172	D3	2311	A2	3168	B3	5104	E3		

MONO Board-Bottom View



1102	B1
1103	A1
1106	A3
1107	A1
1108	A1
2101	A1
2103	A1
2104	A1
2105	D1
2107	E1
2114	B1
2126	D3
2130	B1
2138	D1
2141	B1
2145	C1
2149	D1
2180	C1
2182	C1
2184	C1
2193	D1
2195	E1
2196	E1
2302	A3
2308	A3
2311	A2



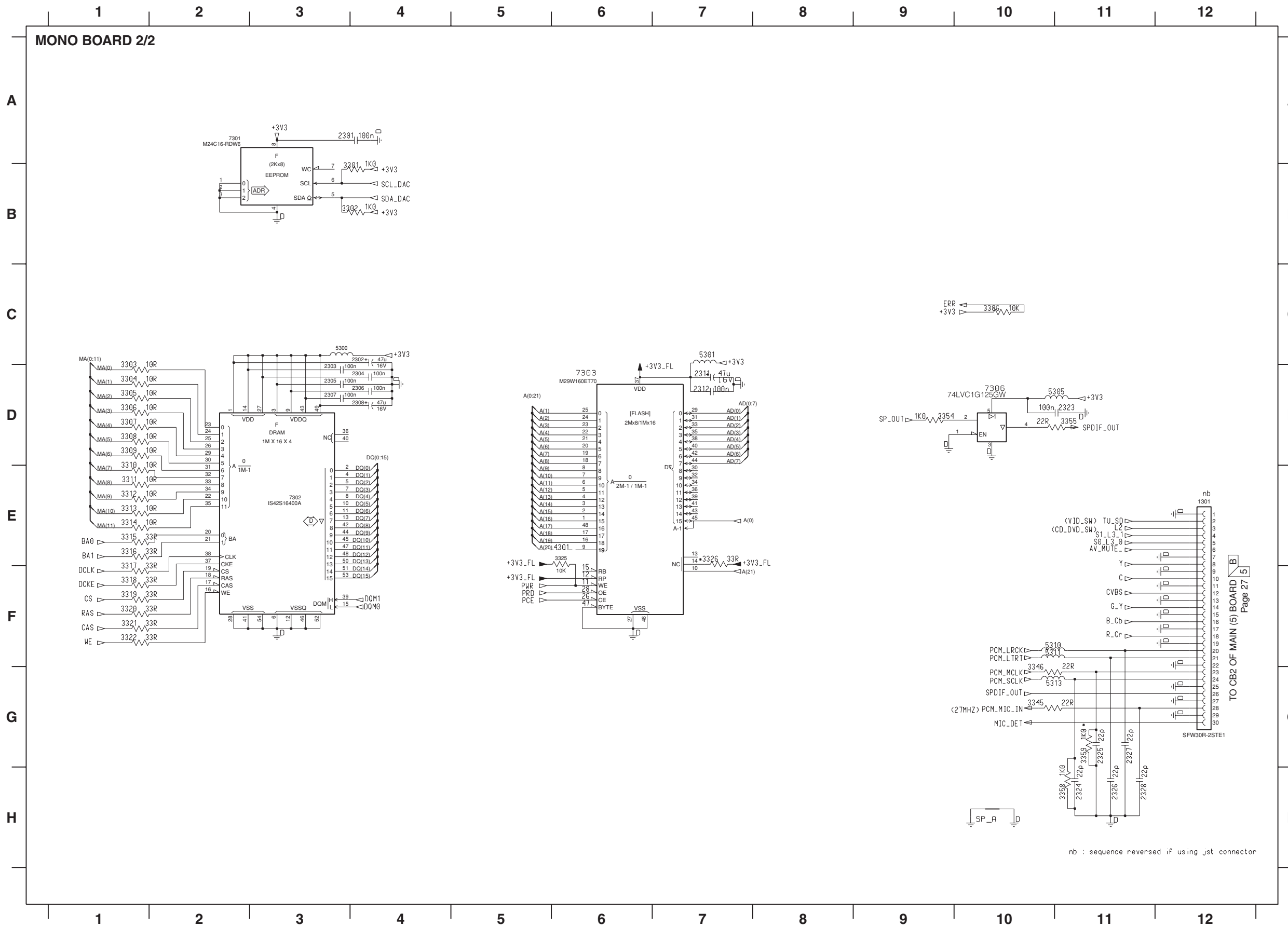


■ SCHEMATIC DIAGRAM

FOR INFORMATION ONLY (NO REPLACEMENT COMPONENT PARTS WILL BE AVAILABLE)

The first digit of a component indicates the component type.

1xxx : Connector    3xxx : Resistor    5xxx : Coil    7xxx : IC, Transistor, FET  
 2xxx : Capacitor    4xxx : SMD jumper    6xxx : Diode    9xxx : Wire jumper

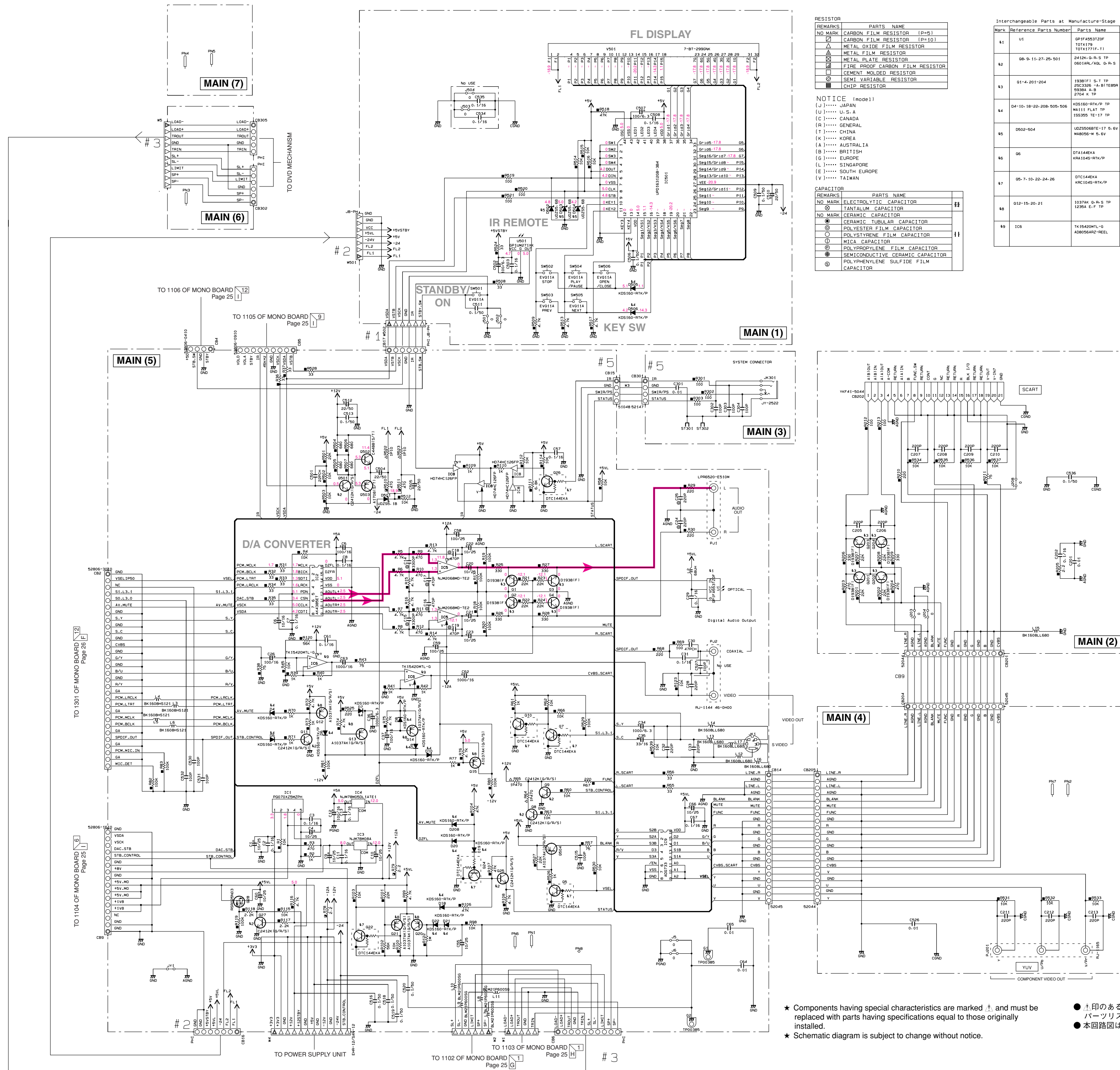


- 1301 E12
- 2301 A3
- 2302 D4
- 2303 D3
- 2304 D4
- 2305 D3
- 2306 D4
- 2307 D3
- 2308 D4
- 2311 D7
- 2312 D7
- 2323 D11
- 2324 H11
- 2326 H11
- 2327 G11
- 2328 H11
- 3301 B4
- 3302 B4
- 3303 D1
- 3304 D1
- 3305 D1
- 3306 D1
- 3307 D1
- 3308 D1
- 3309 D1
- 3310 E1
- 3311 E1
- 3312 E1
- 3313 E1
- 3314 E1
- 3315 E1
- 3316 E1
- 3317 F1
- 3318 F1
- 3319 F1
- 3320 F1
- 3321 F1
- 3322 F1
- 3325 E6
- 3326 E7
- 3345 G10
- 3346 G10
- 3354 D9
- 3355 D11
- 3358 H11
- 3359 G11
- 3386 C10
- 4301 E6
- 5300 C3
- 5301 C7
- 5305 D10
- 5310 F10
- 5311 F10
- 5313 G10
- 7301 A2
- 7302 D2
- 7303 D6
- 7306 D10

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nb : sequence reversed if using jst connector

■ SCHEMATIC DIAGRAM (MAIN)



RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
△	CARBON FILM RESISTOR (P=10)
▲	METAL OXIDE FILM RESISTOR
⊠	METAL FILM RESISTOR
⊞	METAL PLATE RESISTOR
⊚	FINE PROOF CARBON FILM RESISTOR
⊛	CEMENT MOLDED RESISTOR
⊜	SEMI VARIABLE RESISTOR
⊝	CHIP RESISTOR

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
41	U1	OP14553Z0F 101K179 101K177(F1)
42	98-9-11-27-26-501	2412K-G-R-S TP 9898A-A-B 2704 K TP
43	01-4-201-204	1938(F1) S-T TP 25C3306 -A-B1TE99A 9398A-A-B 2704 K TP
44	04-10-18-20-208-505-506	KDS160-RTK/P TP M4111 PLAT TP 193295 TE-17 TP
45	D502-504	UD25068TE-17 5-6V M48056-W 5-6V
46	06	DT144EK4 K481045-RTK/P
47	05-7-10-22-24-26	DT144EK4 K481045-RTK/P
48	012-15-20-21	1037K-G-R-S TP 1235A-E-F TP
49	1C5	K15420MTL-G AD80564R2-REEL

NOTICE (mode1)  
 (J) JAPAN  
 (U) U.S.A  
 (C) CANADA  
 (R) GENERAL  
 (T) CHINA  
 (K) KOREA  
 (A) AUSTRALIA  
 (B) BRITISH  
 (G) EUROPE  
 (L) SINGAPORE  
 (E) SOUTH EUROPE  
 (V) TAIWAN

CAPACITOR

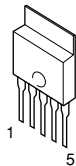
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊞	TANTALUM CAPACITOR
⊚	CERAMIC TUBULAR CAPACITOR
⊙	CERAMIC CAPACITOR
⊛	POLYPROPYLENE FILM CAPACITOR
⊜	POLYSTYRENE FILM CAPACITOR
⊝	MICA CAPACITOR
⊞	SILICON OXIDE FILM CAPACITOR
⊚	SEMICONDUCTIVE CERAMIC CAPACITOR
⊛	POLYPHENYLENE SULFIDE FILM CAPACITOR

★ Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
 ● △印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。  
 ● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

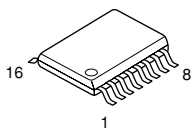
# PIN CONNECTION DIAGRAM

## ● ICs

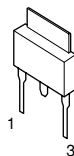
PQ070X25MZP



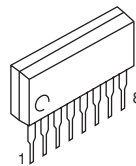
AK4385ET  
ADG733



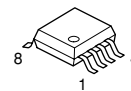
NJM78M05DL 1A  
NJM78M08A 8V



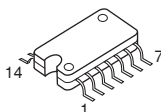
NJM2068MD



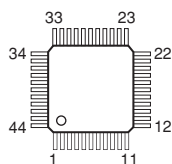
TK15420M



HD74HC126FP



uPD16312GB

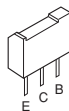


## ● Transistors

2SA1037K (Q, R, S)  
2SC2412K (Q, R, S)  
2SD1938F (S, T)  
DTC144EKA  
RSR025N03

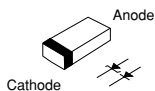


2SA1708 (S, T)  
2SC4488 (S, T)

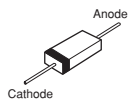


## ● Diodes

UDZ5.1B 5.1V  
UDZS5.6BTE-17 5.6V



KDS160-RTK




DVD-E600MK2



# PARTS LIST

## ■ ELECTRICAL PARTS

### ■ WARNING

- Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.

### ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

C.A.EL.CHP	: CHIP ALUMI.ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED,INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR,RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.EL.BP	: BIPOLAR ELECTROLYTIC CAP	R.CAR.	: CARBON RESISTOR
C.MICA	: MICA CAP	R.CAR.CHP	: CHIP RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MP	: METALLIZED PAPER CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.FLM	: METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POL	: POLYESTER FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL	: TANTALUM CAP	R.CEMENT	: CEMENT RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
C.TRIM	: TRIMMER CAP	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN	: CONNECTOR	SCR.CUP	: CUP TITE SCREW
CN.BS.PIN	: CONNECTOR,BASE PIN	SCR.TERM	: SCREW TERMINAL
CN.CANNON	: CONNECTOR,CANNON	SCR.TR	: SCREW,TRANSISTOR
CN.DIN	: CONNECTOR,DIN	SUPRT.PCB	: SUPPORT,P.C.B.
CN.FLAT	: CONNECTOR,FLAT CABLE	SURG.PRTCT	: SURGE PROTECTOR
CN.POST	: CONNECTOR,BASE POST	SW.TACT	: TACT SWITCH
COIL.MX.AM	: COIL,AM MIX	SW.LEAF	: LEAF SWITCH
COIL.AT.FM	: COIL,FM ANTENNA	SW.LEVER	: LEVER SWITCH
COIL.DT.FM	: COIL,FM DETECT	SW.MICRO	: MICRO SWITCH
COIL.MX.FM	: COIL,FM MIX	SW.PUSH	: PUSH SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.RT.ENC	: ROTARY ENCODER
DIOD.ARRAY	: DIODE ARRAY	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.BRG	: DIODE BRIDGE	SW.RT	: ROTARY SWITCH
DIODE.CHP	: CHIP DIODE	SW.SLIDE	: SLIDE SWITCH
DIODE.VAR	: VARACTOR DIODE	TERM.SP	: SPEAKER TERMINAL
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DIODE.ZENR	: ZENER DIODE	THRMST.CHP	: CHIP THERMISTOR
DSCR.CE	: CERAMIC DISCRIMINATOR	TR.CHP	: CHIP TRANSISTOR
FER.BEAD	: FERRITE BEADS	TR.DGT	: DIGITAL TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TRANS	: TRANSFORMER
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS.PULS	: PULSE TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PWR	: POWER TRANSFORMER ASS'Y
FLTR.COMB	: COMB FILTER MODULE	TUNER.AM	: TUNER PACK,AM
FLTR.LC.RF	: LC FILTER,EMI	TUNER.FM	: TUNER PACK,FM
GND.MTL	: GROUND PLATE	TUNER.PK	: FRONT-ENDTUNER PACK
GND.TERM	: GROUND TERMINAL	VR	: ROTARY POTENTIOMETER
HOLDER.FUS	: FUSE HOLDER	VR.MTR	: POTENTIOMETER WITH MOTOR
IC.PRTCT	: IC PROTECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.CN	: JUMPER CONNECTOR	VR.SLIDE	: SLIDE POTENTIOMETER
JUMPER.TST	: JUMPER,TEST POINT	VR.TRIM	: TRIMMER POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE		

**P.C.B. MAIN**

Ref. No.	Part No.	Description	Markets
	WG111500	P. C. B. MAIN:SI	BGE
* CB2	WG158500	CN. BS. PIN 30P TE 52806	
* CB4	WF730200	CN. BS. PIN 4P TE	
* CB5	WF730500	CN. BS. PIN 9P TE	
* CB6	VB390600	CN. BS. PIN 10P	
* CB9	WF730700	CN. BS. PIN 16P TE	
CB14	VQ047500	CN. BS. PIN 20P	
CB16	VB390300	CN. BS. PIN 7P	
CB17	VB390200	CN. BS. PIN 6P	
CB201	VM929900	CN. BS. PIN 15P	
CB202	WB497100	CN 21P YKF41-5044	
CB204	VM859600	CN. BS. PIN 15P	
CB205	VQ045000	CN. BS. PIN 20P	
CB301	VK024800	CN. BS. PIN 4P	
CB302	VB390200	CN. BS. PIN 6P	
CB305	VB390100	CN. BS. PIN 5P	
C1	UR847100	C. EL 10uF 25V	
C2-3	US135100	C. CE. CHP 0.1uF 16V	
C4	UR847100	C. EL 10uF 25V	
C5	UR838100	C. EL 100uF 16V	
C6	UR837100	C. EL 10uF 16V	
C7-8	US135100	C. CE. CHP 0.1uF 16V	
C9-10	UR847100	C. EL 10uF 25V	
C11	US135100	C. CE. CHP 0.1uF 16V	
C12	UR838100	C. EL 100uF 16V	
C13	US135100	C. CE. CHP 0.1uF 16V	
C14-15	UA653330	C. MYLAR 3300pF 50V J	
C16-19	UA652470	C. MYLAR 470pF 50V J	
C20-23	UR847100	C. EL 10uF 25V	
C24-25	UA652220	C. MYLAR 220pF 50V J	
C26	UR038100	C. EL 100uF 16V	
C28	US062220	C. CE. CHP 220pF 50V B	
C29	US135100	C. CE. CHP 0.1uF 16V	
C30	US061470	C. CE. CHP 47pF 50V B	
C31	US135100	C. CE. CHP 0.1uF 16V	
C32-33	US062220	C. CE. CHP 220pF 50V B	
C34	UR819100	C. EL 1000uF 6.3V	
C35	UN837330	C. EL. BP 33uF 16V	
C36	UR819100	C. EL 1000uF 6.3V	
C37	UR838100	C. EL 100uF 16V	
C55	UR847100	C. EL 10uF 25V	
C57	US135100	C. CE. CHP 0.1uF 16V	
C58-59	UR848100	C. EL 100uF 25V	
C60	UR847100	C. EL 10uF 25V	
C61	US135100	C. CE. CHP 0.1uF 16V	
C62-63	UR039100	C. EL 1000uF 16V	
C64-65	US064100	C. CE. CHP 0.01uF 50V B	
C66	UR847100	C. EL 10uF 25V	

\* New Parts

**P.C.B. MAIN**

Ref. No.	Part No.	Description	Markets
C67	US135100	C. CE. CHP 0.1uF 16V	
C201	US064100	C. CE. CHP 0.01uF 50V B	
C202	US135100	C. CE. CHP 0.1uF 16V	
C205-213	US062220	C. CE. CHP 220pF 50V B	
C301	US064100	C. CE. CHP 0.01uF 50V B	
C302-304	US062100	C. CE. CHP 100pF 50V B	
C501	US061220	C. CE. CHP 22pF 50V B	
C502	UM388100	C. EL 100uF 10V	
C503	US135100	C. CE. CHP 0.1uF 16V	
C504-505	UR867220	C. EL 22uF 50V	
C506	US065100	C. CE. CHP 0.1uF 50V B	
C507	UM388100	C. EL 100uF 10V	
C508	US135100	C. CE. CHP 0.1uF 16V	
C509	US065100	C. CE. CHP 0.1uF 50V B	
C510	UM417220	C. EL 22uF 50V	
C511	US065100	C. CE. CHP 0.1uF 50V B	
C512	UR867220	C. EL 22uF 50V	
C513	US065100	C. CE. CHP 0.1uF 50V B	
C515	US062100	C. CE. CHP 100pF 50V B	
C516	US065100	C. CE. CHP 0.1uF 50V B	
C518-520	US065100	C. CE. CHP 0.1uF 50V B	
C526	US064100	C. CE. CHP 0.01uF 50V B	
C530-532	US062100	C. CE. CHP 100pF 50V B	
C536	US065100	C. CE. CHP 0.1uF 50V B	
D4-10	WC398800	DIODE KDS160-RTK	
D18-22	WC398800	DIODE KDS160-RTK	
D208	WC398800	DIODE KDS160-RTK	
D501	VU171900	DIODE. ZENR UDZ5.1B 5.1V	
D502-504	VU172000	DIODE. ZENR UDZS5.6BTE-17 5.6V	
D505-506	WC398800	DIODE KDS160-RTK	
IC1	X3204A00	IC PQ070XZ5MZP	
IC2	X6040A00	IC AK4385ET	
IC3	XJ601A00	IC NJM78M08A 8V	
IC4	XS534A00	IC NJM78M05DL1A(Te1)	
IC5	X3505A00	IC NJM2068MD-TE2	
IC6	XW939A00	IC TK15420M VIDEO AMP	
IC8	XY071A00	IC HD74HC126FP BUS BU	
IC9	X6509A00	IC ADG733	
IC501	X5751A00	IC. CPU UPD16312GB-3BS-A	
JK1	WG158400	TERM. S S-JACK	
JK301	WD662100	JACK. PIN 4P JY-2522	
PJ1	V7720900	JACK. PIN LPR6520-E510M	
PJ2	WG226800	JACK. PIN 2P RJ-1144	
PJ201	WG139700	JACK. PIN 3P RJ-1165	
PN1-7	V9637500	PIN L=70 #18	
PN8	V8637500	PIN L=50 #18	
Q1-4	VZ725900	TR 2SD1938F S, T	
Q5	VV655700	TR. DGT DTC144EKA	

\* New Parts

**P.C.B. MAIN**

Ref. No.	Part No.	Description	Markets
Q7	VV655700	TR. DGT DTC144EKA	
Q8-9	VV556400	TR 2SC2412K Q, R, S	
Q10	VV655700	TR. DGT DTC144EKA	
Q11	VV556400	TR 2SC2412K Q, R, S	
Q12-15	VV556500	TR 2SA1037K Q, R, S	
Q20-21	VV556500	TR 2SA1037K Q, R, S	
Q22	VV655700	TR. DGT DTC144EKA	
Q24	VV655700	TR. DGT DTC144EKA	
Q25	VV556400	TR 2SC2412K Q, R, S	
Q26	VV655700	TR. DGT DTC144EKA	
Q27	VV556400	TR 2SC2412K Q, R, S	
Q28	WF764200	FET RSR025N03	
Q201-204	VZ725900	TR 2SD1938F S, T	
Q501	VV556400	TR 2SC2412K Q, R, S	
Q502	VP872700	TR 2SC4488 S, T	
Q503	VP872600	TR 2SA1708 S, T	
Q504	VV556500	TR 2SA1037K Q, R, S	
R64-65	VP940800	R. MTL. OXD 470Ω 1W	
R78-79	HV753220	R. CAR. FP 2.2Ω 1/4W	
R510-511	HV755470	R. CAR. FP 470Ω 1/4W	
R522-523	VP939800	R. MTL. OXD 10Ω 1W	
ST301-302	V4040500	SCR. TERM M3	
SW501-506	V4757100	SW. TACT EVQ11A	
U1	WB001600	CN. PHOT. SN 1P GP1FA553TZ	
U501	V8444900	L. DTCT GP1UM271XK	
V501	WD602800	FL. DSPLY 7-BT-299GNK	
%	WD890100	SHEET/FL ORANGE:GD	
%	WD890000	SHEET/FL BLUE :SI	

**%: Note on the MAIN P.C.B.**

Of the MAIN P.C.B. part Nos., only the silver (SI) type part Nos. are included in the table.

The only different part between the gold (GD) and silver (SI) type parts is the sheet/FL that is attached to the fluorescent character display tube. When a gold (GD) type MAIN P.C.B. becomes necessary, order a silver (SI) type MAIN P.C.B. and a gold (GD) type sheet/FL (WD890100) and replace the sheet/FL of the silver (SI) type MAIN P.C.B. with the gold (GD) type sheet/FL.

\* New Parts

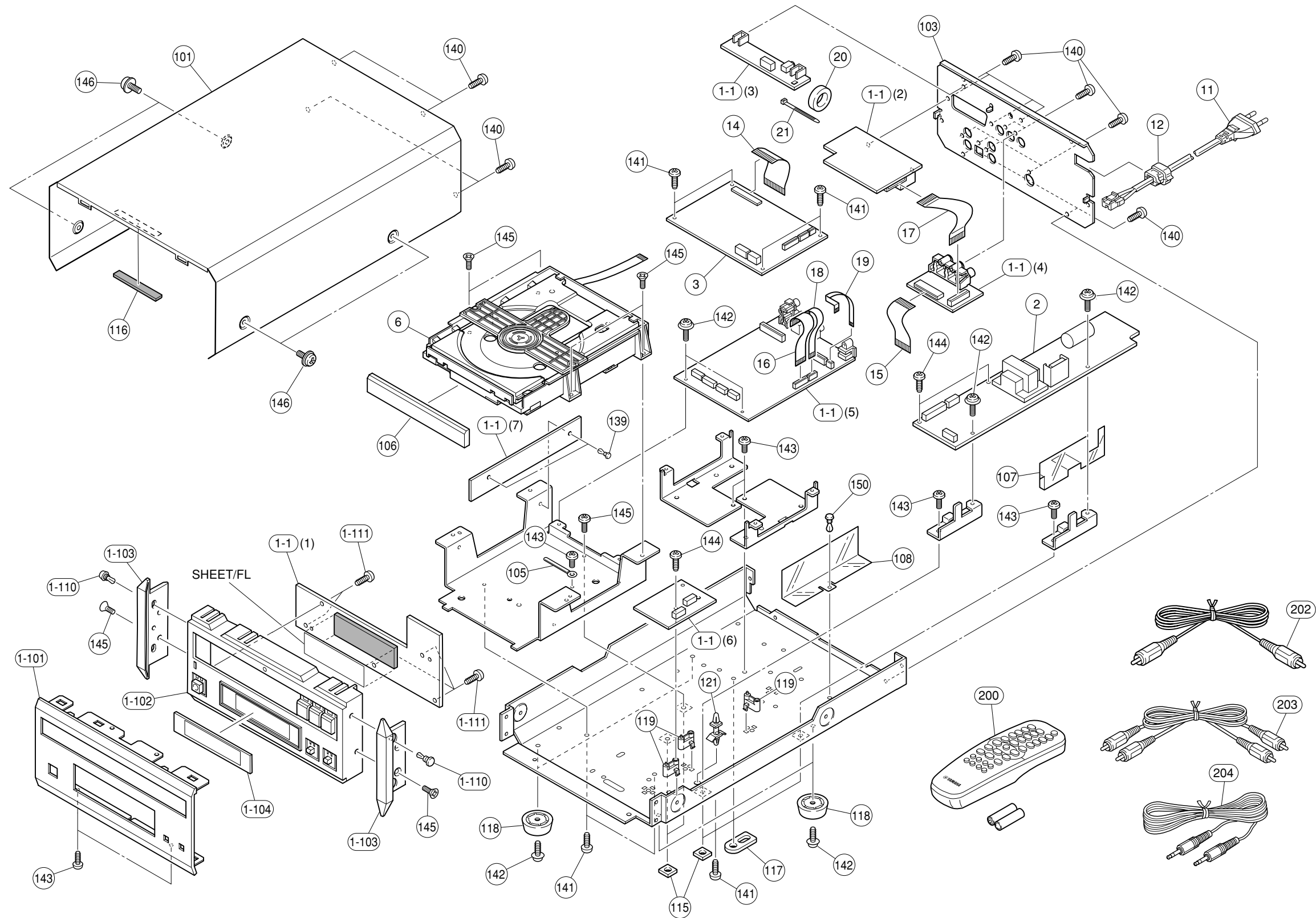
**Chip Resistors**

- The chip resistor is not supplied as a replacement part.
- \* When a chip resistor is necessary, use the following part. AAX60720: CHIP RESISTOR SAMPLE BOOK

Ref. No.	Part No.	Description	Markets
	RD350000	R. CHP 0Ω 1/16W J	
	RD353220	R. CHP 2.2Ω 1/16W J	
	RD354330	R. CHP 33Ω 1/16W J	
	RD354750	R. CHP 75Ω 1/16W J	
	RD355100	R. CHP 100Ω 1/16W J	
	RD355220	R. CHP 220Ω 1/16W J	
	RD355330	R. CHP 330Ω 1/16W J	
	RD355470	R. CHP 470Ω 1/16W J	
	RD355680	R. CHP 680Ω 1/16W J	
	RD356100	R. CHP 1KΩ 1/16W J	
	RD356220	R. CHP 2.2KΩ 1/16W J	
	RD356470	R. CHP 4.7KΩ 1/16W J	
	RD356680	R. CHP 6.8KΩ 1/16W J	
	RD357100	R. CHP 10KΩ 1/16W J	
	RD357220	R. CHP 22KΩ 1/16W J	
	RD357470	R. CHP 47KΩ 1/16W J	
	RD357560	R. CHP 56KΩ 1/16W J	
	RD358100	R. CHP 100KΩ 1/16W J	
	RD359100	R. CHP 1MΩ 1/16W J	

\* New Parts

■ EXPLODED VIEW



⚠: Note on the MAIN P.C.B.

Of the MAIN P.C.B. part Nos., only the silver (SI) type part Nos. are included in the table.

The only different part between the gold (GD) and silver (SI) type parts is the sheet/FL that is attached to the fluorescent character display tube. When a gold (GD) type MAIN P.C.B. becomes necessary, order a silver (SI) type MAIN P.C.B. and a gold (GD) type sheet/FL (WD890100) and replace the sheet/FL of the silver (SI) type MAIN P.C.B. with the gold (GD) type sheet/FL.

## MECHANICAL PARTS

Ref. No.	Part No.	Description	Remarks	Markets
* 1-1	WG111500	P. C. B. ASS'Y	MAIN	SI
* 1-101	WG127400	FRONT PANEL		GD
* 1-101	WG127300	FRONT PANEL		SI
1-102	WE493500	SUB PANEL-DVD		GD
1-102	WE493400	SUB PANEL-DVD		SI
1-103	V8785200	PANEL/SIDE	H100	
1-104	WD607500	SHEET/WINDOW		
1-110	VQ368600	PUSH RIVET	P3555-B	
1-111	VF617600	PAN HEAD P-TIGHT SCREW	2.6x8 MFC2BL	
* 2	X7186A00	POWER SUPPLY UNIT		3139 248 72062
* 3	X7187A00	MONO BOARD		3139 248 86741
* 6	WG205300	DVD MECHANISM UNIT		3139 248 72251
* 11	VN363600	POWER CABLE		GE
* 11	WF723100	POWER CABLE	2m	B
12	V2438700	CORD STOPPER	10P1	
* 14	WG226900	FLEXIBLE FLAT CABLE	30P 70mm P=1.0	
* 15	WG227300	FLEXIBLE FLAT CABLE	20P 80mm P=1.25	
* 16	WG227100	FLEXIBLE FLAT CABLE	16P 80mm P=1.0	
17	MF115080	FLEXIBLE FLAT CABLE	15P 80mm P=1.25	
* 18	WG227200	FLEXIBLE FLAT CABLE	9P 80mm P=1.0	
* 19	WG227000	FLEXIBLE FLAT CABLE	4P 70mm P=1.0	
20	VB933800	FERRITE CORE	BP53RB310190NOA	
21	VU590000	BINDING TIE	CBTD001B	
101	V7127400	TOP COVER		GD
101	V7127300	TOP COVER		SI
* 103	WG127200	REAR PANEL		
105	WD397500	BINDING TIE	MSF-085	
* 106	WG127600	LID/DVD		GD
* 106	WG127500	LID/DVD		SI
107	WE361000	SHEET/BARRIER		
108	WF754600	BARRIER PSU		
115	WC879000	DAMPER		
116	VP857700	DAMPER	4x6x55	
117	V7616600	DAMPER		
118	V3688500	LEG	M0080-M0	
* 119	WG085200	SUPPORT/PSU		
121	WA602600	LOCKING CARD SPACER	KGLS-8S	
139	VQ368500	PUSH RIVET	P3545-B	
140	WE774100	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2B3	
141	WE774300	BIND HEAD B-TIGHT SCREW	3x8 MFZN2W3	
142	VT669300	PW HEAD B-TIGHT SCREW	3x8-8 MFC2	
143	WE936300	BIND HEAD B-TIGHT SCREW	3x6 MFZN2W3	

\* New Parts

Ref. No.	Part No.	Description	Remarks	Markets
144	WE774800	BIND HEAD P-TIGHT SCREW	3x8 MFZN2W3	
145	EP600790	FLAT HEAD B-TIGHT SCREW	3x8 MFZN2BL	
146	VY712800	PW HEAD B-TIGHT SCREW	3x8-8 MFN133	
* 150	WG432900	PUSH RIVET	P3535	
%	WD890100	SHEET/FL	ORANGE	GD
	WD890000	SHEET/FL	BLUE	SI
		ACCESSORIES		
200	WD882600	REMOTE CONTROL		3139 248 71873
202	VV209200	VIDEO PIN CABLE	1P 1.0m	
203	VY952200	AUDIO PIN CABLE	2P 1.0m 1pc	
204	WD865200	SYSTEM CONTROL CABLE	1P 1.0m 1pc	
		BATTERY, MANGANESE	SUM-3M 2pcs	

\* New Parts



# DVD-E600MK2

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