

**TOSHIBA**

FILE NO. 020-200521  
Revision 1

SERVICE MANUAL

Plasma Monitor

***42DPC85***

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## SERVICE SAFETY PRECAUTIONS

- The caution items shown here describe major safety issues and should always be observed.
- The meanings of the various indications are as follows.

 <b>WARNING</b>	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users due to a product defect after the service operation is completed, could possibly be in danger of injury or even death in the event of operational error.
 <b>CAUTION</b>	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users after the service operation is completed, could possibly be in danger of injury, or where there could be physical damage in the event of operational error.

\* Physical damage means major damage to a home, furnishings and other possessions.

### Examples of marks

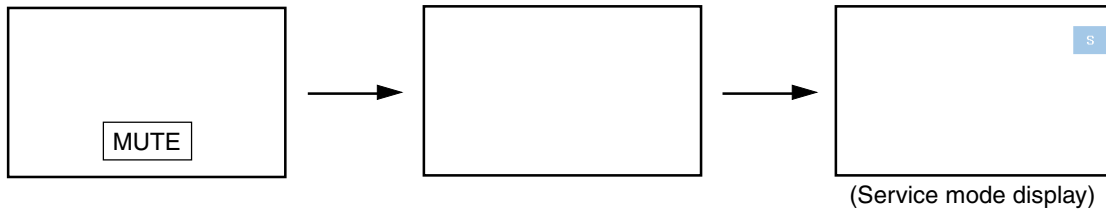
 <b>SHOCK HAZARD</b>	The $\Delta$ indicates caution (including danger and warning). The actual meaning of this caution is indicated inside the $\Delta$ or nearby illustrations or text. The example shown to the left indicates the danger of "electrical shock".
 <b>PROHIBIT DISASSEMBLING</b>	The $\ominus$ indicates a forbidden action. The actual meaning of this caution is indicated inside the $\ominus$ or nearby illustrations or text. The example shown to the left indicates that disassembly is forbidden.
 <b>UNPLUG</b>	The $\bullet$ indicates a forced action (an action that must be performed). The actual meaning of this forced action is indicated by $\bullet$ or nearby illustrations or text. The example shown to the left indicates that the power plug must be disconnected.

 <b>WARNING</b>	
 <b>KEEP CHILDREN AWAY</b>	<ul style="list-style-type: none"> <li>Always advise users to keep children away. There is danger of injury to children from tools, disassembled products, etc.</li> </ul>
 <b>UNPLUG</b>	<ul style="list-style-type: none"> <li>Always disconnect the power plug before starting work whenever power is not required. Failure to disconnect the power plug before starting work can result in electrical shock.</li> </ul>
 <b>SHOCK HAZARD</b>	<ul style="list-style-type: none"> <li>Depending on the model, use an insulation transformer or wear gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.</li> </ul>
 <b>USE SPECIFIED PARTS</b>	<ul style="list-style-type: none"> <li>Always use the replacement parts specified for the particular model when making repairs. The parts used in products have the necessary safety characteristics such as inflammability, voltage resistance, etc.; therefore, use only replacement parts that have these same characteristics. Use only the specified parts when the ⚠ mark is included in a circuit diagram or parts list.</li> </ul>
 <b>CAUTION FOR WIRING</b>	<ul style="list-style-type: none"> <li>Parts mounting and routing of the wiring should be the same as that used originally. For safety purposes, insulating materials such as tubing or tape is sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wiring is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the original scheme.</li> </ul>
 <b>CAUTION FOR ASSEMBLING / WIRING</b>	<ul style="list-style-type: none"> <li>After a repair has been completed, reassemble all disassembled parts, and route and reconnect the wiring, in accordance with the original scheme. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc., and may be hazardous.</li> </ul>
 <b>CHECK INSULATION RESISTANCE</b>	<ul style="list-style-type: none"> <li>After completing the work, disconnect the power plug from the outlet, remove the antenna, turn on the power switch. Then, use a 500V insulation resistance meter to check the insulation resistance of the antenna terminal, other metallic parts and between the prongs of the power plug to make sure that the insulation resistance is 1M Ω or more. The set will require inspection and repair if the insulation resistance is below this value.</li> </ul>
 <b>PROHIBIT REMODELING</b>	<ul style="list-style-type: none"> <li>Never remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous</li> </ul>

# SERVICE MODE

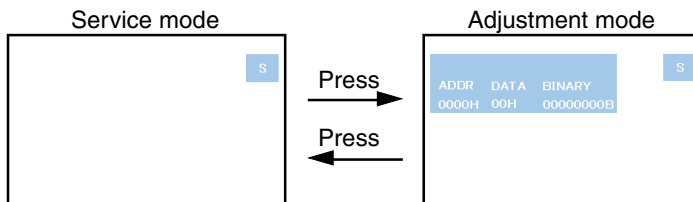
## 1. ENTERING SERVICE MODE

- 1) Press MUTE button twice on Remote Control.
- 2) Press MUTE button again and keep pressing.
- 3) While pressing the MUTE button, press MENU button on TV set.



## 2. DISPLAYING THE ADJUSTMENT MENU

- 1) Press MENU button on Remote Control.



## 3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Test signal selection :	TV/VIDEO button (on Remote)
Selection of the adjustment items :	Channel ▲ / ▼ (on TV or Remote)
Change of the data value :	Volume ◀ / ▶ (on TV) or ▲ / ▼ (on Remote)
Adjustment menu mode ON/OFF :	MENU button (on Remote)
Initialization of the memory :	Recall + Channel button on TV (▲)
Reset the count of operating protect circuit to "00" :	Recall + Channel button on TV (▼)
"RCUT" selection :	1 button
"GCUT" selection :	2 button
"BCUT" selection :	3 button
"CNTX" selection :	4 button
"COLC" selection :	5 button -----Color thickness correction
"UVTT" selection :	6 button
Automatic A/D Adjustment(PC, Component) :	7 button
Self diagnostic display ON/OFF :	9 button

note: Displayed differently as shown below, depending on the setting of the receiving color system.  
COLP (PAL)  
COLC (NTSC)  
COLS (SECAM)

**CAUTION :** Never try to perform initialization unless you have changed the memory IC.

#### 4. SELECTING THE ADJUSTING ITEMS

- 1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2.  
(▼ button for reverse order)

#### 5. ADJUSTING THE DATA

- 1) Pressing of VOLUME ◀ / ▶ , ▲ / ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

#### 6. EXIT FROM SERVICE MODE

- 1) Pressing POWER button to turn off the TV once.

#### ■ INITIALIZATION OF MEMORY DATA

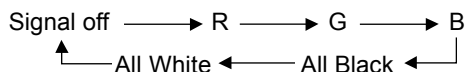
After replacing EEPROM IC, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the Recall button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of EEPROM IC has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above.  
Perform "Auto tune" on the owner's manual.

CAUTION: Never attempt to initialize the data unless EEPROM IC has been replaced.

#### 7. TEST SIGNAL SELECTION

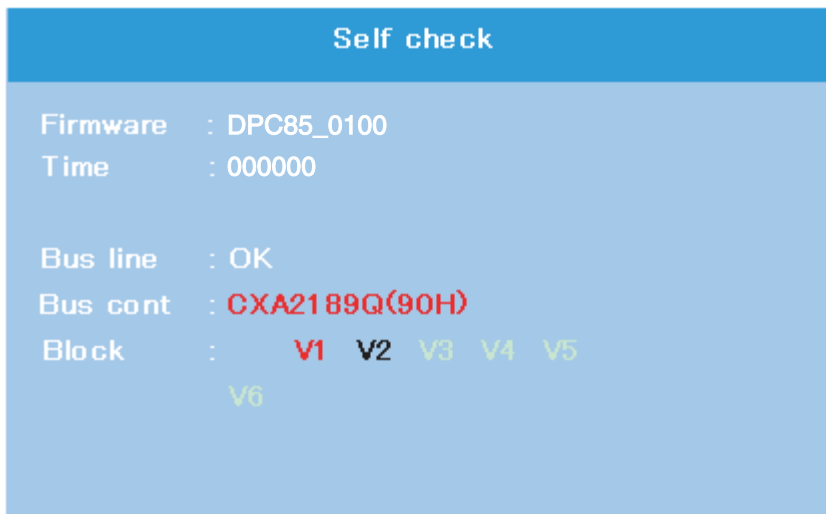
- 1) Every pressing of TV/VIDEO button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.



Signals	Picture
<ul style="list-style-type: none"><li>• Red raster</li><li>• Green raster</li><li>• Blue raster</li><li>• All Black</li><li>• All White</li></ul>	

## 8. SELF DIAGNOSTIC FUNCTION

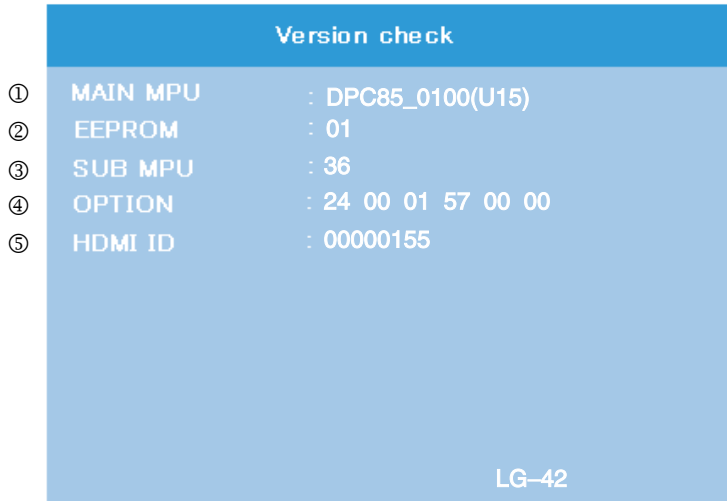
- 1) Press "9" button on Remote Control during display of adjustment menu in the service mode.  
The diagnosis will begin to check if interface among IC's is executed properly.
- 2) During diagnosis, the following displays are shown.



- ① Firmware :  
Version information of microprocessor  
In case of file name : DPC85 and Version : 0100 indicates[DPC85\_0100].
- ② Time : Total hour of turn the TV on. (Unit : H)
- ③ Bus line : --"OK" is normal  
"SCL-GND"(Red indication) : SCL-GND short circuit  
"SDA-GND"(Red indication) : SDA-GND short circuit  
"SCL-SDA"(Red indication) : SCL-SDA short circuit
- ④ Bus cont : --- "OK" is normal.  
NG is abnormal(Red indication), when type name of semiconductor indicates.
- ⑤ Block  
V1 : VIDEO 1 input mode  
V2 : VIDEO 2 input mode  
V3 : VIDEO 3 input mode  
V4 : ColorStream 1 IN  
V5 : ColorStream 2 IN  
V6 : HDMI A/V IN

**9. VERSION CHECK MODE**

- 1) Press “9” button twice on Remote Control during display of adjustment menu in the service mode. The version of main MPU will begin to check.
- 2) During Version Check, the following displays are shown.



⑥

- ① MAIN MPU :  
Version information of microprocessor  
In case of file name : DPC85, Version 0100 for Code Program Version and (U15) for OSD Version indicates [DPC85\_0100(U15)]
- ② EEPROM :  
Version information of EEPROM : Display 1 byte data.
- ③ SUB MPU :  
Version information of SUB MPU : Display 1 byte data.
- ④ OPTION :  
Option information : Display six numbers of 1 byte data.
- ⑤ HDMI ID :  
HDMI ID information : Display 4 byte data.
- ⑥ PDP Panel Vender information display  
The following Panel Vender and screen size are displayed.

Panel Vender	Screen Size(Inch)
LG	-42

Example : LG-42 indicates that vender is LG and Screen Size is 42 inch.



## 10. STATUS CHECK MODE

- 1) Press "9" button thrice on Remote Control during display of adjustment menu in the service mode. The status of this model will begin to check.
- 2) During Status Check, the following displays are shown.

Status check	
①	MAIN : EXT1
②	MAIN FORMAT : 480i
③	SCREEN SIZE : NATURAL
④	OTHER STATUS : 0000 0000 0000

① MAIN :

Main source information :

Display RF position number (0 - 99) on the main screen, or Input Source (EXT1/2/3/HDMI etc.)

② MAIN FORMAT :

Display Video and PC format information

③ SCREEN SIZE :

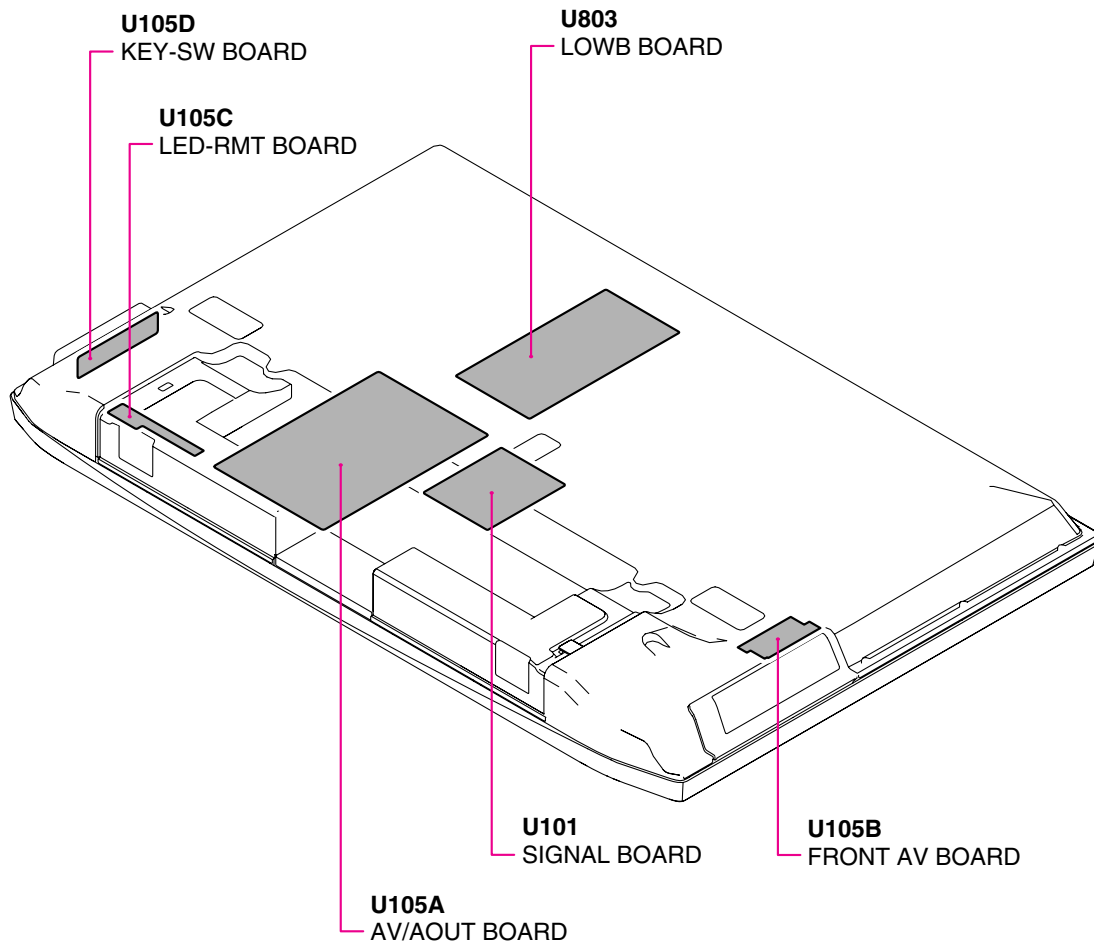
Display the screen size as follows.

Theater Wide 1
Theater Wide 2
Theater Wide 3
FULL
NATURAL

④ OTHER STATUS :

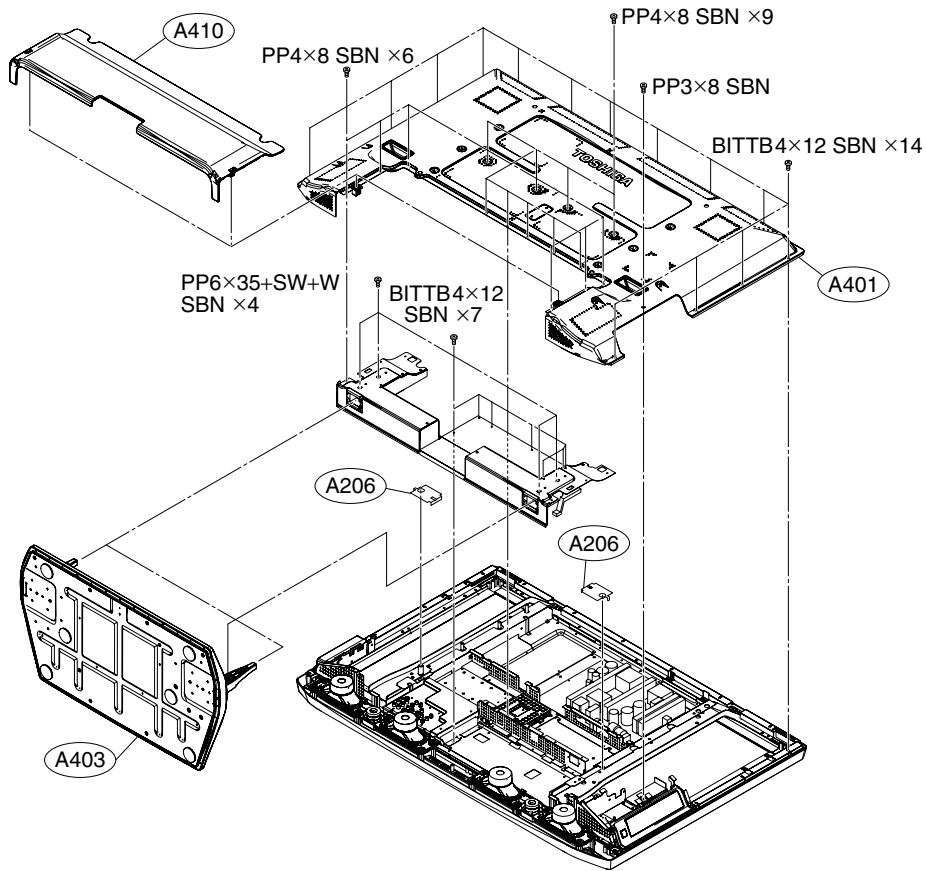
Other status information : Display three numbers of 2 byte data.

# LAYOUT OF MAJOR BOARDS

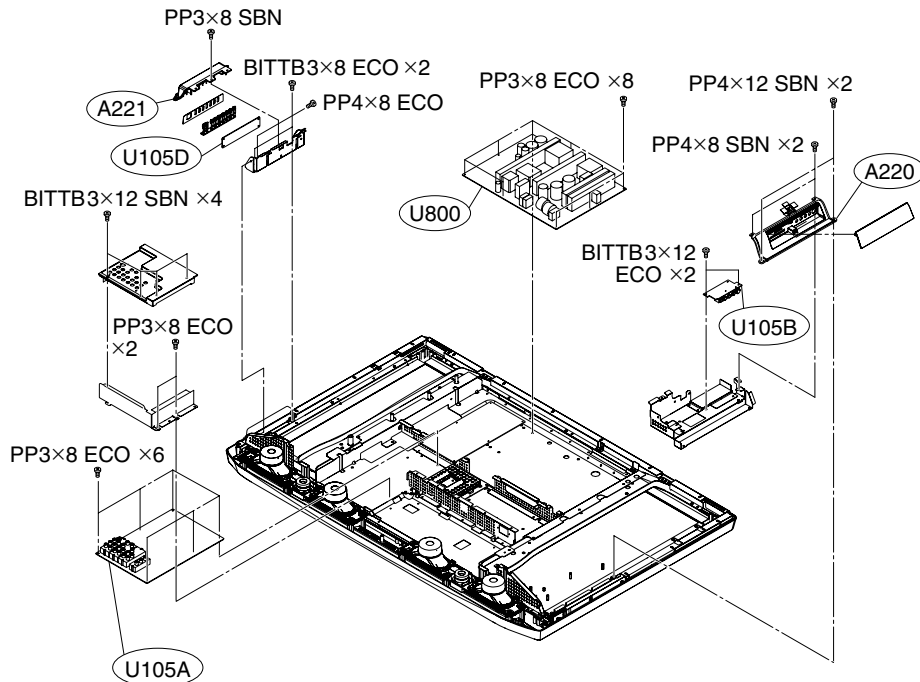


# MECHANICAL DISASSEMBLY

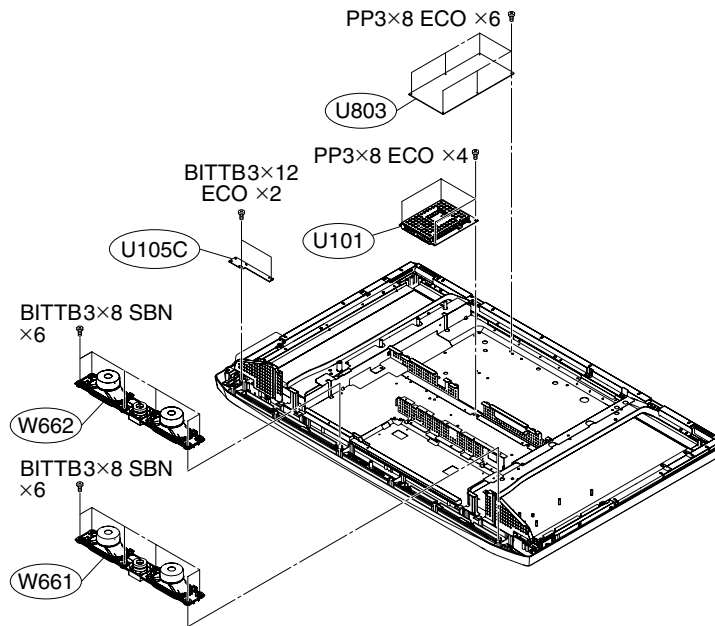
## 1. Remove the stand (foot) and back cover.



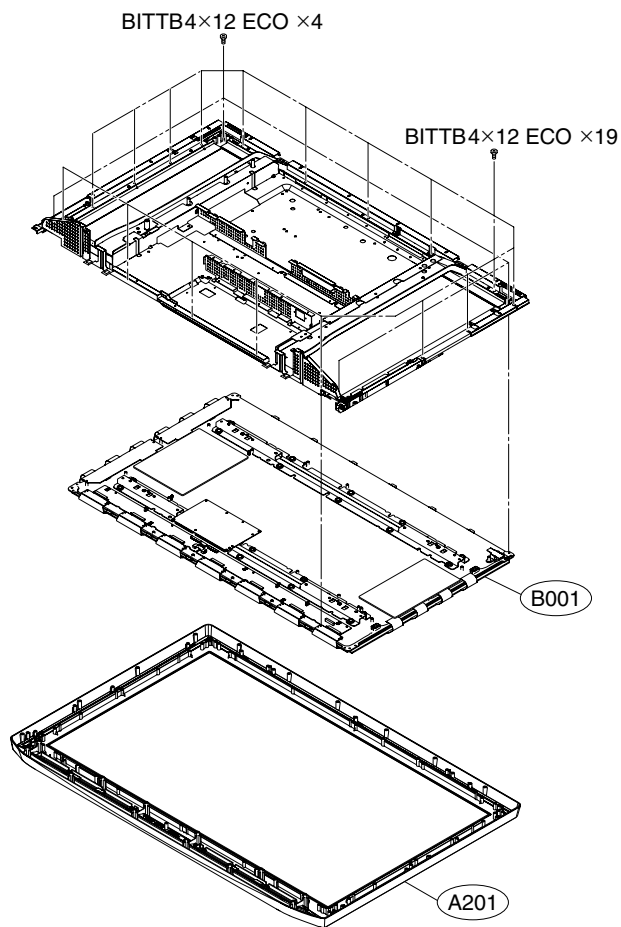
## 2. Remove the boards (AV/AOUT, FRONT AV, KEY-SW) and piece key ass'y.



**3. Remove the boards (SIGNAL, LED-RMT, LOWB) and speaker.**

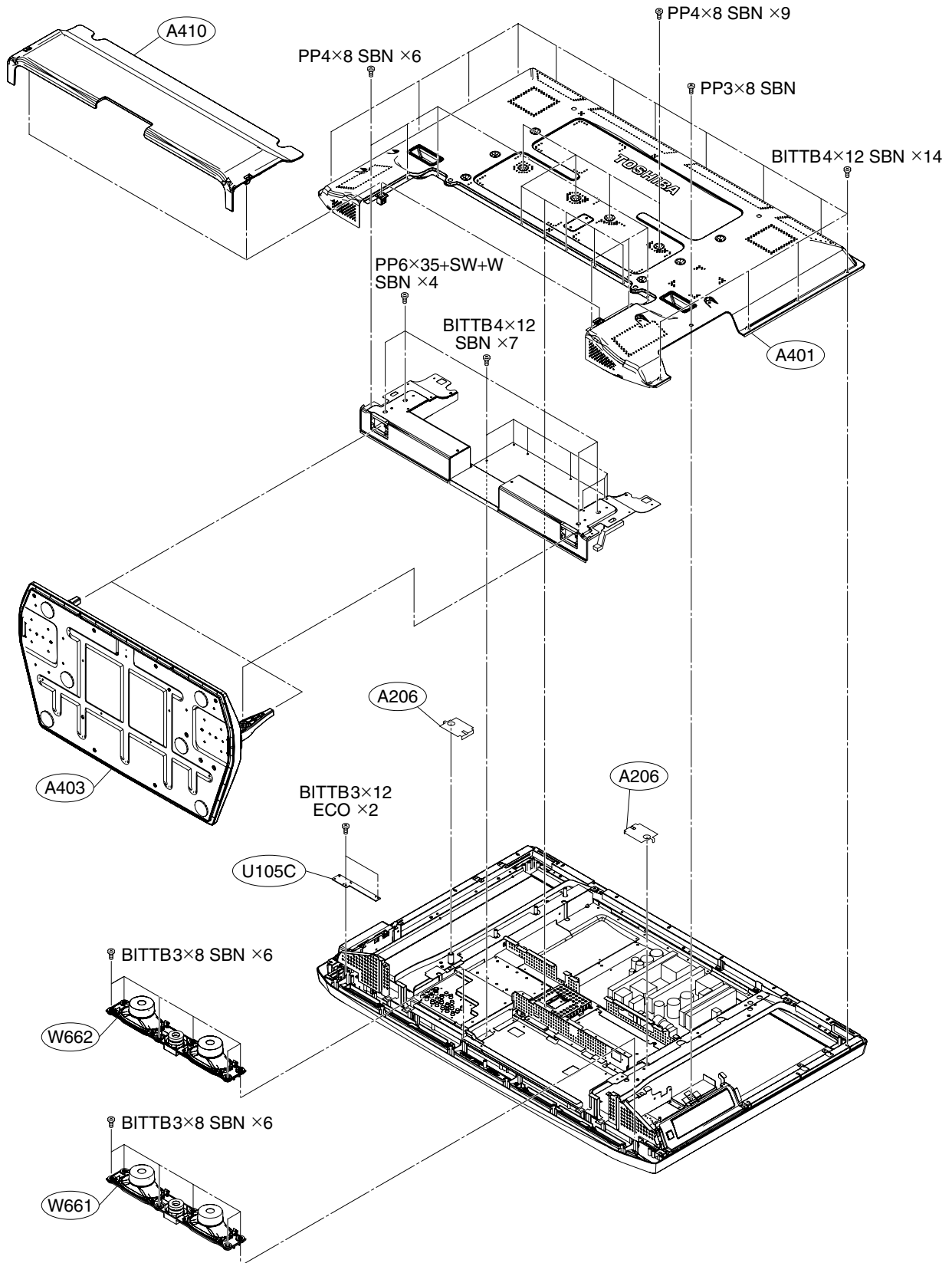


**4. Remove the display.**

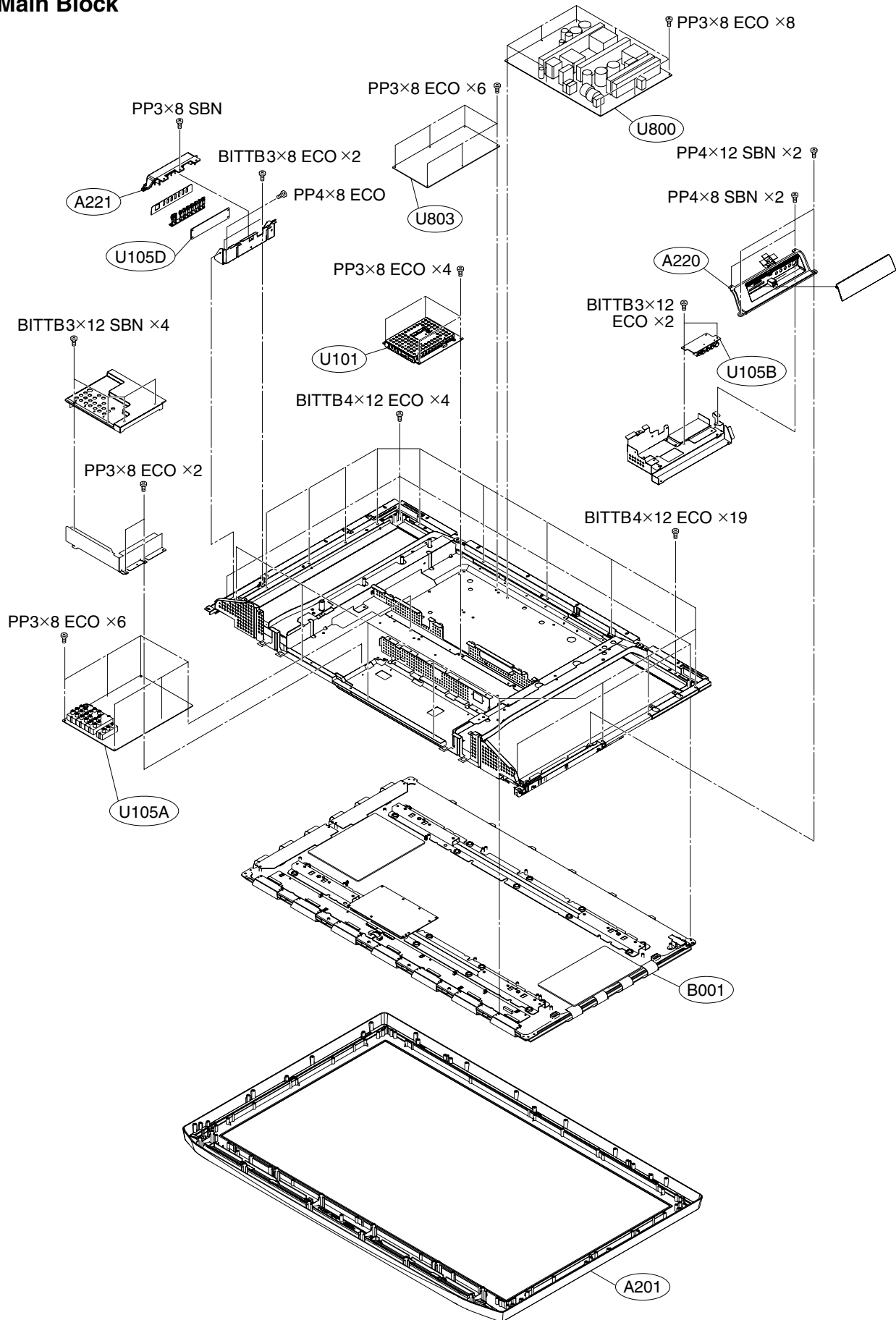


# EXPLODED VIEWS

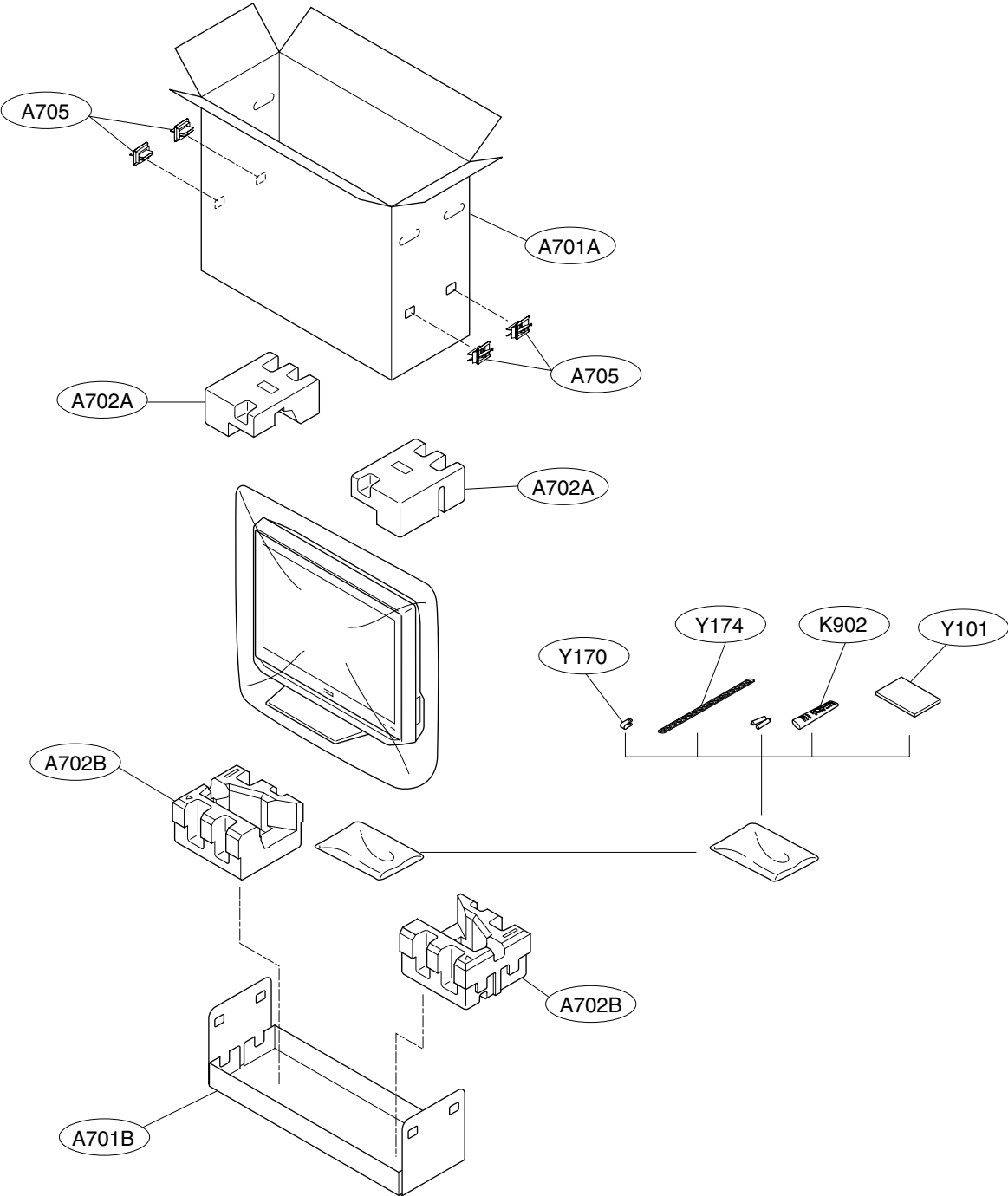
## 1. Chassis Block



## 2. Main Block




# PACKING DISASSEMBLY



# CHASSIS AND CABINET REPLACEMENT PARTS LIST

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "SERVICE SAFETY PRECAUTIONS" ON PAGE 3 OF THIS MANUAL.

**CAUTION:** The international hazard symbols " " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS. Do not degrade the safety of the receiver through improper servicing.

**NOTICE:**

- The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.
- The PC board assembly with \* mark is no longer available after the end of the production.

**Model : 42DPC85**

Capacitors ..... CD : Ceramic Disk      PF : Plastic Film      EL : Electrolytic  
 Resistors ..... CF : Carbon Film      CC : Carbon Composition      MF : Metal Film  
                          OMF : Oxide Metal Film      VR : Variable Resistor      FR : Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
<b>CAPACITORS</b>		
C605	76109102	CERAMIC CHIP, 50V B 1000PF K
C606	76109102	CERAMIC CHIP, 50V B 1000PF K
C656	76797100	ELECTROLYTIC, 50V 10UF M
C660	76669479	ELECTROLYTIC, 50V 4.7UF M
C661	76669479	ELECTROLYTIC, 50V 4.7UF M
C662	76109681	CERAMIC CHIP, 50V B 680PF K
C663	76109681	CERAMIC CHIP, 50V B 680PF K
C669	76109102	CERAMIC CHIP, 50V B 1000PF K
C670	76669100	ELECTROLYTIC, 50V 10UF M
C671	76669100	ELECTROLYTIC, 50V 10UF M
C673	76619102	ELECTROLYTIC CHIP, 16V 47UF M
C674	76092731	CERAMIC CHIP, 16V B 1UF K
C677	76092731	CERAMIC CHIP, 16V B 1UF K
C678	76285104	CERAMIC CHIP, 50V B 0.1UF K
C679	76285104	CERAMIC CHIP, 50V B 0.1UF K
C680	76668102	ELECTROLYTIC, 35V 1000UF M 3A
C681	76073073	ELECTROLYTIC, 35V 2200UF M 3A
C682	76073073	ELECTROLYTIC, 35V 2200UF M 3A
C684	76109103	CERAMIC CHIP, 50V B 0.01UF K
C685	76092538	CERAMIC CHIP, 10V F 1UF Z
C690	76664102	ELECTROLYTIC, 6.3V 1000UF M 3A
C691	76092463	CERAMIC CHIP, 16V B 0.22UF K
C692	76092463	CERAMIC CHIP, 16V B 0.22UF K
C6600	76092731	CERAMIC CHIP, 16V B 1UF K
C6601	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6602	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6603	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6604	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6605	76092515	CERAMIC CHIP, 16V F 4.7UF Z
C6606	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6607	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6615	76092726	CERAMIC CHIP, 10V B 2.2UF K
C6616	76092726	CERAMIC CHIP, 10V B 2.2UF K
CB01	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB02	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB03	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CB04	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CB05	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB38	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CC01	76109102	CERAMIC CHIP, 50V B 1000PF K

Location No.	Parts No.	Description
CC02	76109102	CERAMIC CHIP, 50V B 1000PF K
CC03	76109102	CERAMIC CHIP, 50V B 1000PF K
CC04	76109102	CERAMIC CHIP, 50V B 1000PF K
CC05	76109102	CERAMIC CHIP, 50V B 1000PF K
CC06	76109102	CERAMIC CHIP, 50V B 1000PF K
CC07	76109102	CERAMIC CHIP, 50V B 1000PF K
CC08	76109102	CERAMIC CHIP, 50V B 1000PF K
CC10	76109102	CERAMIC CHIP, 50V B 1000PF K
CC11	76109102	CERAMIC CHIP, 50V B 1000PF K
CC12	76109102	CERAMIC CHIP, 50V B 1000PF K
CC13	76109102	CERAMIC CHIP, 50V B 1000PF K
CC14	76109102	CERAMIC CHIP, 50V B 1000PF K
CC15	76109102	CERAMIC CHIP, 50V B 1000PF K
CE03	76539104	PLASTIC FILM, 50V 0.1UF J
CE05	76073090	ELECTROLYTIC, 50V 100UF M 3A
CE10	76666470	ELECTROLYTIC, 16V 47UF M 3A
CE11	76539474	PLASTIC FILM, 50V 0.47UF J
CE12	76666470	ELECTROLYTIC, 16V 47UF M 3A
CE60	76073186	ELECTROLYTIC, 35V 470UF M
CE61	76617028	ELECTROLYTIC, 16V 1200UF M
CE62	76073020	ELECTROLYTIC, 10V 1000UF M 3A
CE63	76539104	PLASTIC FILM, 50V 0.1UF J
CE64	76539104	PLASTIC FILM, 50V 0.1UF J
CE65	76666470	ELECTROLYTIC, 16V 47UF M 3A
CE66	76539474	PLASTIC FILM, 50V 0.47UF J
CE67	76666470	ELECTROLYTIC, 16V 47UF M 3A
CE85	76666470	ELECTROLYTIC, 16V 47UF M 3A
CV38	76109102	CERAMIC CHIP, 50V B 1000PF K
CV68	76797010	ELECTROLYTIC, 50V 1UF M
CV72	76794471	ELECTROLYTIC, 16V 470UF M
CV74	76794101	ELECTROLYTIC, 16V 100UF M
CV76	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CV122	76105101	CERAMIC CHIP, 50V CH 100PF J
CY650	76109103	CERAMIC CHIP, 50V B 0.01UF K
<b>RESISTORS</b>		
R264	76871750	CHIP, 1/8W 75 OHM J
R265	76871750	CHIP, 1/8W 75 OHM J
R266	76871750	CHIP, 1/8W 75 OHM J
R286	76871750	CHIP, 1/8W 75 OHM J
R287	76871750	CHIP, 1/8W 75 OHM J



Location No.	Parts No.	Description
R288	76871750	CHIP, 1/8W 75 OHM J
R657	76011473	CHIP, 1/20W 47K OHM J
R658	76011473	CHIP, 1/20W 47K OHM J
R659	76011103	CHIP, 1/20W 10K OHM J
R664	76011104	CHIP, 1/20W 100K OHM J
R670	76011472	CHIP, 1/20W 4.7K OHM J
R671	76011472	CHIP, 1/20W 4.7K OHM J
R672	76011182	CHIP, 1/20W 1.8K OHM J
R673	76011182	CHIP, 1/20W 1.8K OHM J
R678	76871229	CHIP, 1/8W 2.2 OHM J
R679	76871229	CHIP, 1/8W 2.2 OHM J
R680	76011473	CHIP, 1/20W 47K OHM J
R681	76011473	CHIP, 1/20W 47K OHM J
R683	76011103	CHIP, 1/20W 10K OHM J
R684	76011104	CHIP, 1/20W 100K OHM J
R685	76011222	CHIP, 1/20W 2.2K OHM J
R686	76011102	CHIP, 1/20W 1K OHM J
R687	76871102	CHIP, 1/8W 1K OHM J
R688	76871102	CHIP, 1/8W 1K OHM J
R689	76871102	CHIP, 1/8W 1K OHM J
R690	76011473	CHIP, 1/20W 47K OHM J
R691	76011103	CHIP, 1/20W 10K OHM J
R692	76011223	CHIP, 1/20W 22K OHM J
R693	76871102	CHIP, 1/8W 1K OHM J
R694	76871102	CHIP, 1/8W 1K OHM J
R695	76871102	CHIP, 1/8W 1K OHM J
R6603	76011223	CHIP, 1/20W 22K OHM J
R6604	76011102	CHIP, 1/20W 1K OHM J
R6605	76011103	CHIP, 1/20W 10K OHM J
R6606	76011104	CHIP, 1/20W 100K OHM J
R6614	76011102	CHIP, 1/20W 1K OHM J
R6615	76011102	CHIP, 1/20W 1K OHM J
R6616	76011104	CHIP, 1/20W 100K OHM J
R6617	76011104	CHIP, 1/20W 100K OHM J
R6620	76011101	CHIP, 1/20W 100 OHM J
R6622	76011100	CHIP, 1/20W 10 OHM J
R6623	76011100	CHIP, 1/20W 10 OHM J
R6624	76011100	CHIP, 1/20W 10 OHM J
R6625	76011104	CHIP, 1/20W 100K OHM J
R6626	76011104	CHIP, 1/20W 100K OHM J
R6627	76011104	CHIP, 1/20W 100K OHM J
R6628	76011104	CHIP, 1/20W 100K OHM J
R6629	76011222	CHIP, 1/20W 2.2K OHM J
R6633	76011101	CHIP, 1/20W 100 OHM J
R6634	76011100	CHIP, 1/20W 10 OHM J
R6635	76011104	CHIP, 1/20W 100K OHM J
R6636	76011104	CHIP, 1/20W 100K OHM J
R6638	76011473	CHIP, 1/20W 47K OHM J
R6639	76011473	CHIP, 1/20W 47K OHM J
R6657	76011100	CHIP, 1/20W 10 OHM J
R6658	76011104	CHIP, 1/20W 100K OHM J
R6659	76011101	CHIP, 1/20W 100 OHM J
R6660	76011104	CHIP, 1/20W 100K OHM J
RA71	76011683	CHIP, 1/20W 68K OHM J
RA72	76011223	CHIP, 1/20W 22K OHM J
RA73	76011103	CHIP, 1/20W 10K OHM J
RA74	76000445	CHIP JUMPER, 1608TYPE
RA77	76011103	CHIP, 1/20W 10K OHM J
RA78	76000445	CHIP JUMPER, 1608TYPE
RA79	76000445	CHIP JUMPER, 1608TYPE
RB08	76011470	CHIP, 1/20W 47 OHM J
RB09	76011470	CHIP, 1/20W 47 OHM J
RB15	76011471	CHIP, 1/20W 470 OHM J
RB24	76000445	CHIP JUMPER, 1608TYPE
RC01	76011101	CHIP, 1/20W 100 OHM J
RC02	76011101	CHIP, 1/20W 100 OHM J

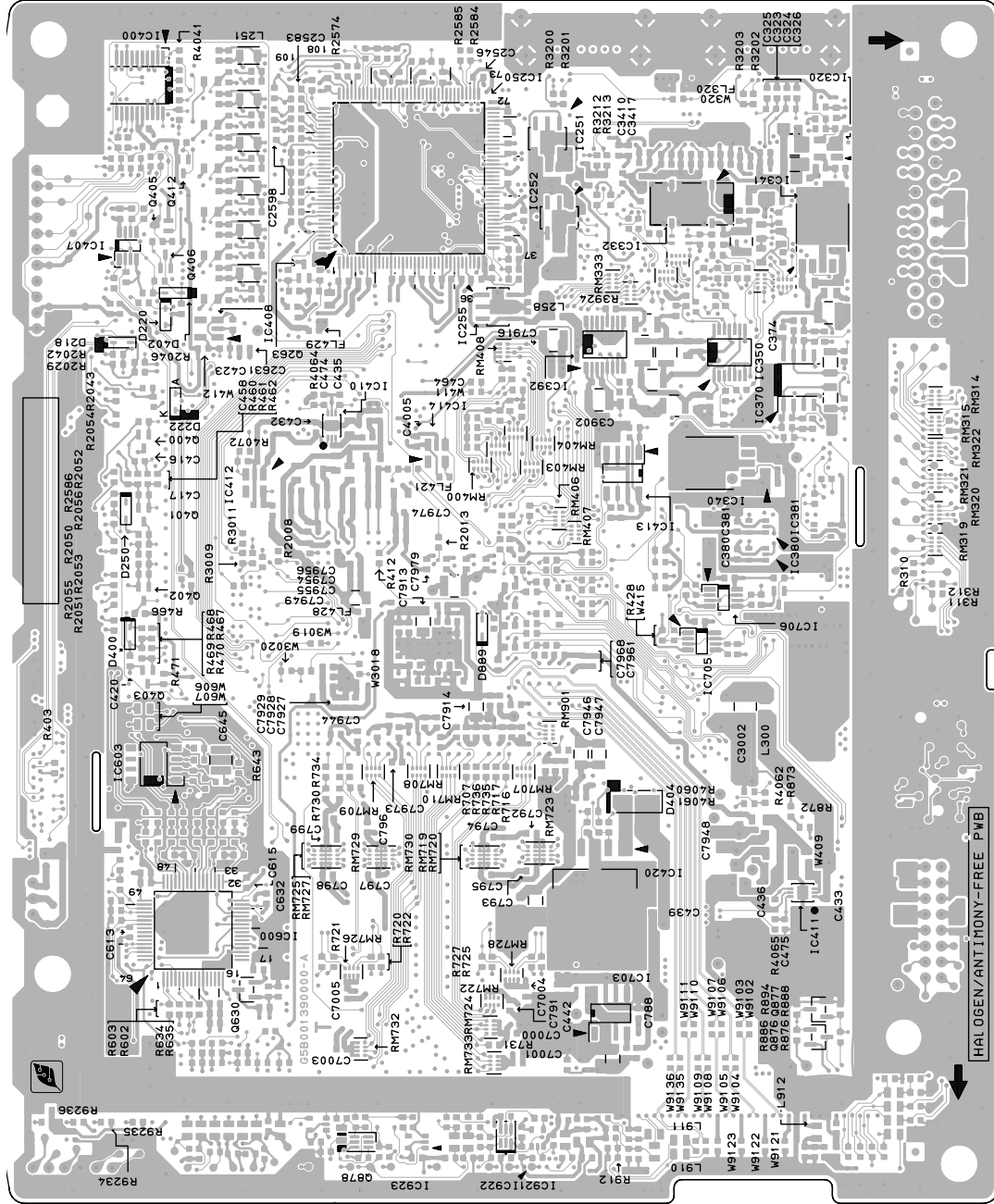
Location No.	Parts No.	Description
RC03	76011101	CHIP, 1/20W 100 OHM J
RC04	76011101	CHIP, 1/20W 100 OHM J
RC05	76011101	CHIP, 1/20W 100 OHM J
RC06	76011101	CHIP, 1/20W 100 OHM J
RC07	76011101	CHIP, 1/20W 100 OHM J
RC08	76011101	CHIP, 1/20W 100 OHM J
RC09	76011101	CHIP, 1/20W 100 OHM J
RC10	76011101	CHIP, 1/20W 100 OHM J
RC11	76011101	CHIP, 1/20W 100 OHM J
RC12	76011101	CHIP, 1/20W 100 OHM J
RE04	76366222	CARBON FILM, 1/6W 2.2K OHM J
RE06	76366473	CARBON FILM, 1/6W 47K OHM J
RE10	76367180	CARBON FILM, 1/6W 18 OHM G
RE11	76367222	CARBON FILM, 1/6W 2.2K OHM G
RE12	76366472	CARBON FILM, 1/6W 4.7K OHM J
RE13	76366102	CARBON FILM, 1/6W 1K OHM J
RE15	76366182	CARBON FILM, 1/6W 1.8K OHM J
RE16	76366473	CARBON FILM, 1/6W 47K OHM J
RE17	76366103	CARBON FILM, 1/6W 10K OHM J
RE18	76366153	CARBON FILM, 1/6W 15K OHM J
RE19	76366473	CARBON FILM, 1/6W 47K OHM J
RE60	76000142	METAL FILM, 1/4W 240 OHM F
RE61	76000360	METAL FILM, 1/4W 1.2K OHM F
RE63	76366102	CARBON FILM, 1/6W 1K OHM J
RE65	76367620	CARBON FILM 1/6W 62 G
RE66	76367222	CARBON FILM, 1/6W 2.2K OHM G
RE85	76552222	OXIDE METAL FILM, 1/2W 2.2K OHM J
RE86	76366103	CARBON FILM, 1/6W 10K OHM J
RV40	76871750	CHIP, 1/8W 75 OHM J
RV41	76000445	CHIP JUMPER, 1608TYPE
RV42	76000445	CHIP JUMPER, 1608TYPE
RV43	76000445	CHIP JUMPER, 1608TYPE
RV44	76000445	CHIP JUMPER, 1608TYPE
RV76	76011750	CHIP, 1/20W 75 OHM J
RV123	76872750	CHIP, 1/16W 75 OHM J
RV330	76871750	CHIP, 1/8W 75 OHM J
RV331	76011101	CHIP, 1/20W 100 OHM J
RV340	76871750	CHIP, 1/8W 75 OHM J
RV370	76871750	CHIP, 1/8W 75 OHM J
RV376	76000445	CHIP JUMPER, 1608TYPE
RV377	76000445	CHIP JUMPER, 1608TYPE
<b>COIL &amp; TRANSFORMERS</b>		
LC01	23103828	INDUCTOR, BEAD, TEM2121M
LC02	23103828	INDUCTOR, BEAD, TEM2121M
LE10	23289980	COIL, PEAKING, TRF4220AZ
LE60	23248456	COIL, CHOKE, TLN3540AH
LE61	23289980	COIL, PEAKING, TRF4220AZ
LE62	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
LV121	23277002	FERRITE CORE, ACM3225-102-2PT100
LV200	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV201	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV202	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV203	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV204	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV205	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV206	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV207	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV208	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV209	23103272	FILTER, EMI 2012 361OHM 0.22A TEM2034AD
LV284	23277002	FERRITE CORE, ACM3225-102-2PT100
<b>SEMICONDUCTORS</b>		
Q651	23205325	TRANSISTOR, RN2404(F)
Q652	23205302	TRANSISTOR, 2SC3326-B(F)
Q653	23205302	TRANSISTOR, 2SC3326-B(F)

Location No.	Parts No.	Description
Q660	23205506	TRANSISTOR, 2SC4081 Q
Q661	23205506	TRANSISTOR, 2SC4081 Q
Q664	23205506	TRANSISTOR, 2SC4081 Q
Q665	23205325	TRANSISTOR, RN2404(F)
Q670	23085039	IC, TA8246AHQ
Q671	23205302	TRANSISTOR, 2SC3326-B(F)
Q672	23205302	TRANSISTOR, 2SC3326-B(F)
Q673	23205443	TRANSISTOR, 2SA1162-Y(F)
Q6600	23009613	IC, CD4052BNSR
Q6603	23205329	TRANSISTOR, RN1404(F)
Q6604	23205329	TRANSISTOR, RN1404(F)
QB07	23205463	TRANSISTOR, 2SC2712-Y(TE85L,F)
QE02	23205313	TRANSISTOR, 2SC1815-Y(F)
QE03	23205315	TRANSISTOR, RN1206(F)
QE04	23205313	TRANSISTOR, 2SC1815-Y(F)
QE10	23135077	IC, SI-3090CA
QE11	23205315	TRANSISTOR, RN1206(F)
QE60	23085381	IC, SI-8050SS
QE65	23135076	IC, SI-3050C
QE85	23205339	TRANSISTOR, 2SC2655-Y(F)
QV16	23085823	IC, 2IN-1OUTSW 6DBAMP CLP(PB F MM1508XNRE
D607	23357802	DIODE, ZENER, MA8330-M
D670	23362140	DIODE, KDS160-RTK
D671	23362140	DIODE, KDS160-RTK
D672	23357744	DIODE, ZENER, MA8056-L
D674	23362140	DIODE, KDS160-RTK
D675	23362140	DIODE, KDS160-RTK
D676	23362140	DIODE, KDS160-RTK
D678	23362140	DIODE, KDS160-RTK
DB01	23358606	DIODE, LED RED, SLR-56VC3FPQ
DB20	23357406	DIODE, ZENER, UDZS5.6B
DB22	23357703	DIODE, 1SS355
DB23	23357703	DIODE, 1SS355
DE01	23357706	DIODE, AK04
DE02	23357706	DIODE, AK04
DE03	23357823	DIODE, ZENER, MTZJ3.6A
DE05	23357499	DIODE, ERB12-01
DE07	23357821	DIODE, ZENER, MTZJ3.3A
DE60	23357810	DIODE, FMB-G14L
DE61	23357697	DIODE, 1SS133
DE62	23357845	DIODE, ZENER, MTZJ7.5B
DE85	23357861	DIODE, ZENER, MTZJ11A
DE86	23357697	DIODE, 1SS133
DE99	23357840	DIODE, ZENER, MTZJ6.2B
<b>MISCELLANEOUS</b>		
⚠ B001	23301670	DISPLAY, PDP42V70440
B001A	23405525	OPTICAL FILTER, PDP42V T40 SSC PM00TZ001
⚠ B205	23940542	PIECE, AV COVER ASSEMBLY 42DPC85
B213	23717219	SCREW, PP3X8+SW+W SBN
B214	23717214	SCREW, BITTB3X12SBN
⚠ FE20	23144373	FUSE, RADIAL LEAD SUB-MINIATUR 250V 630MA
GR605	76000445	CHIP JUMPER, 1608TYPE
KB01	23009710	REMOCON RECEIVER, GP1UE281RK
MJ22	23389359	CABLE, FFC 0.5 50P L70 GOLD
MJ60	23389359	CABLE, FFC 0.5 50P L70 GOLD
MZ01	23368939	CABLE, LVDS 600MM PDP1
N110	23969797	TAPE
P601	23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
P602A	23713938	CONNECTOR, CONNECTB5B-PH-K-S(LF)
P602B	23713938	CONNECTOR, CONNECTB5B-PH-K-S(LF)
P661	23023302	EARPHONE JACK
⚠ P801	23372249	POWER CORD, LU/CSA 2M
⚠ P803A	23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
⚠ P803B	23713763	PLUG, NP 2.5MM G, B12B-EH-F1A
⚠ P804A	23713757	PLUG, 6P 2.5MM G, B6B-EH-F1-TV4

Location No.	Parts No.	Description
⚠ P804B	23713757	PLUG, 6P 2.5MM G, B6B-EH-F1-TV4
⚠ P807A	23367072	PLUG, NP 2.5MM G JST-EH, B12B-EH-F1A
⚠ P809A	23367071	PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A
⚠ P881	23023131	INLET, NOISE FILTER, GL-2080FVP-L
⚠ PJ21A	23713934	CONNECTOR, 2MM 3P S WHT B3B-PH-K-S(LF)
PJ22A	23757176	CONNECTOR, IRS 9637S-50Y902 GLD
⚠ PJ41C	23713943	CONNECTOR, CONNECTB11B-PH-K-S(LF)
PJ60A	23757176	CONNECTOR, IRS 9637S-50Y902 GLD
PP01	23974994	BAND, KESSOKU
PP03	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
PP05	23974994	BAND, KESSOKU
PV01	23023473	JACK, PIN 1S6P SMK LAP5030-0113F
PV02	23023315	JACK, PIN 7P SMK LAP5030-0203F
PV03	23023313	JACK, PIN 5P, LAP5030-0201G
PV05	23023474	JACK, PIN 3P SMK LAP5030-0216F
PV60	23365275	JACK, PHONO 3P V-L-R YKC21
Q670B	23717240	SCREW
QE10B	23717240	SCREW
SA01	23344507	SWITCH, PUSH, SKHHLMA010
SA02	23344507	SWITCH, PUSH, SKHHLMA010
SA03	23344507	SWITCH, PUSH, SKHHLMA010
SA04	23344507	SWITCH, PUSH, SKHHLMA010
SA05	23344507	SWITCH, PUSH, SKHHLMA010
SA06	23344507	SWITCH, PUSH, SKHHLMA010
SA07	23344507	SWITCH, PUSH, SKHHLMA010
⚠ U800	23122502	POWER UNIT, POWER BLOCK MODULE 1H276W
⚠ W661	23351320	SPEAKER, ASSY, 6X12 8-OHM 10W SPK-1468A0
⚠ W662	23351320	SPEAKER, ASSY, 6X12 8-OHM 10W SPK-1468A0
ZA01	23103778	FERRITE CORE, TFE1008
ZA02	23103839	FERRITE CORE, TFE1012
ZA03	23103840	FERRITE CORE, TFE1013
ZA04	23103914	FERRITE CORE, TFE1015AD
<b>PC BOARD ASSEMBLIES</b>		
* U101	75001688	PC BOARD ASSY, PD2222D1 SIGNAL
* U105A	75001689	PC BOARD ASSY, PD2239A1 AV/AOUT
* U105B	75001690	PC BOARD ASSY, PD2239A2 FRONT AV
* U105C	75001691	PC BOARD ASSY, PD2239A3 LED-RMT
* U105D	75001692	PC BOARD ASSY, PD2239A4 KEY-SW
* U803	75001687	PC BOARD ASSY, PD2202F1 LOWB
<b>ACCESSORIES</b>		
A701A	23015211	CARTON, TOP CASE 42DPC85
A701B	23015181	CARTON, BOTTOM CASE
A702A	23580047	PACKING, TOP PACKING
A702B	23580048	PACKING, BOTTOM PACKING
A705	23518043	PACKING, JOINT
⚠ K902	23306626	REMOCON HAND UNIT IR, MTVUSA CT-90232
⚠ Y101	23566768	OWNERS MANUAL, ENGLISH/FRENCH 42DPC85
Y170	23845800	HOLDER, WIRE, NYLON66 D6.8
Y174	23845510	BAND
<b>CABINET PARTS</b>		
⚠ A201	23533667	COVER, FRONT BEZEL ASSY 42DPC85
A206	23469406	INSULATOR, INSULATOR
⚠ A220	23940543	PIECE, PIECE FRONT AV ASSY 42DPC85
⚠ A221	23940544	PIECE, PIECE CONTROL ASSY 42DPC85
A231	23717214	SCREW, BITTB3X12SBN
A235	23717177	SCREW, PP5X12+SW+W SBN
A237	23717250	SCREW, PP4X12+SW+W SBN
⚠ A401	23533556	COVER, BACK COVER ASSY
⚠ A403	23436887	FOOT, STAND ASSY
⚠ A410	23533616	COVER, CABLE COVER PROPER
A423	23717217	SCREW, PP6X35+SW+W SBN

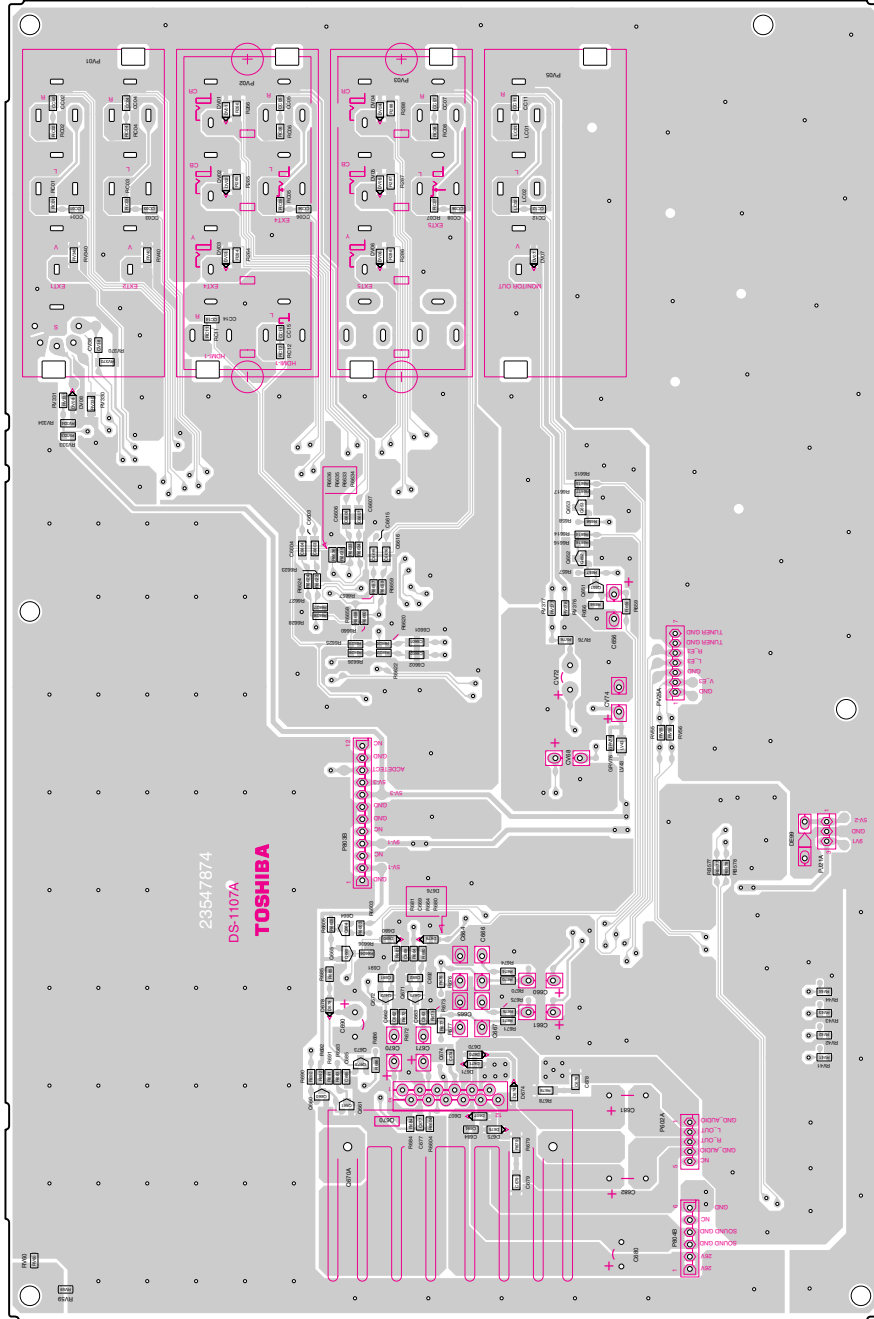
SIGNAL BOARD PD222D1 (U101)

BOTTOM (FOIL) SIDE





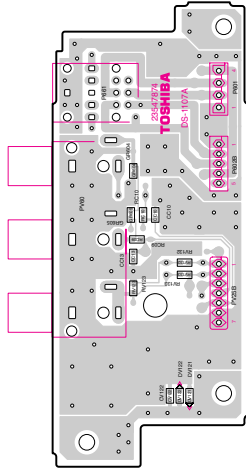
**AV/AOUT BOARD PD2239A1 (U105A)**  
**BOTTOM (FOIL) SIDE**





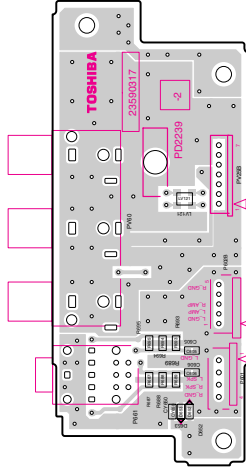
**FRONT AV BOARD PD2239A2 (U105B)**

BOTTOM (FOIL) SIDE



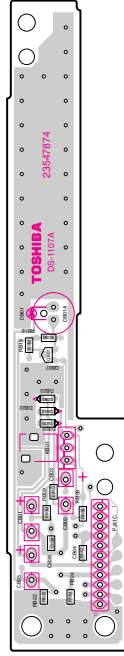
**FRONT AV BOARD PD2239A2 (U105B)**

TOP (COMPONENT) SIDE



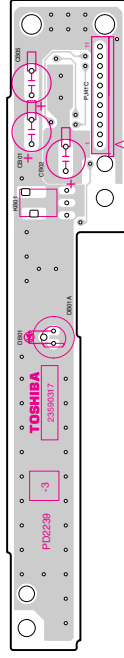
**LED-RMT BOARD PD2239A3 (U105C)**

BOTTOM (FOIL) SIDE



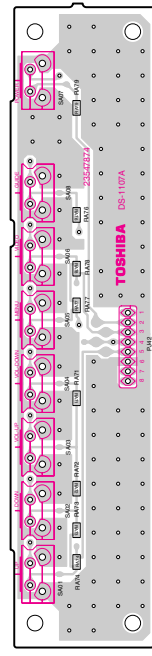
**LED-RMT BOARD PD2239A3 (U105C)**

TOP (COMPONENT) SIDE



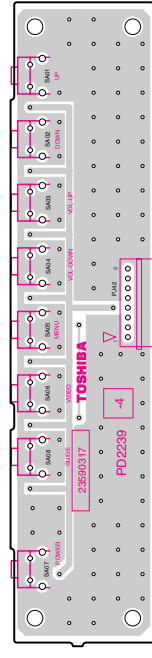
**KEY-SW BOARD PD2239A4 (U105D)**

BOTTOM (FOIL) SIDE

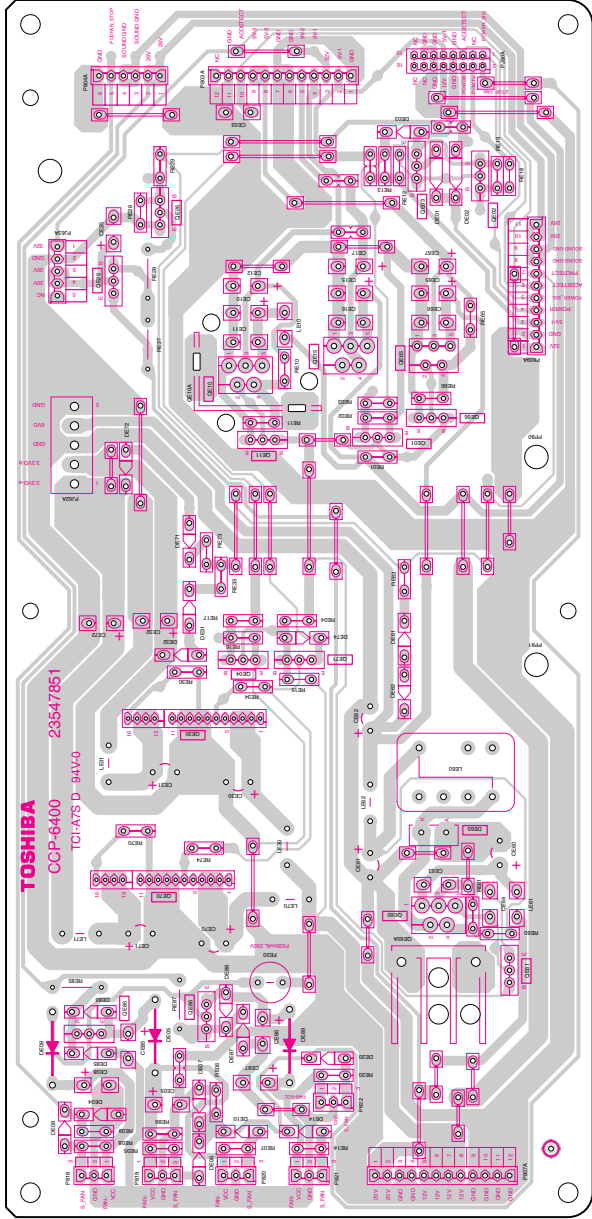


**KEY-SW BOARD PD2239A4 (U105D)**

TOP (COMPONENT) SIDE



**LOWB BOARD PD2202F1 (U803)**  
**BOTTOM (FOIL) SIDE**





# SCHEMATIC DIAGRAM

MODEL : 42DPC85

**WARNING** : BEFORE SERVICING THIS CHASSIS, READ THE "SERVICE SAFETY PRECAUTIONS" ON PAGE 3 OF THIS MANUAL.

**CAUTION** : The international hazard symbols " $\Delta$ " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

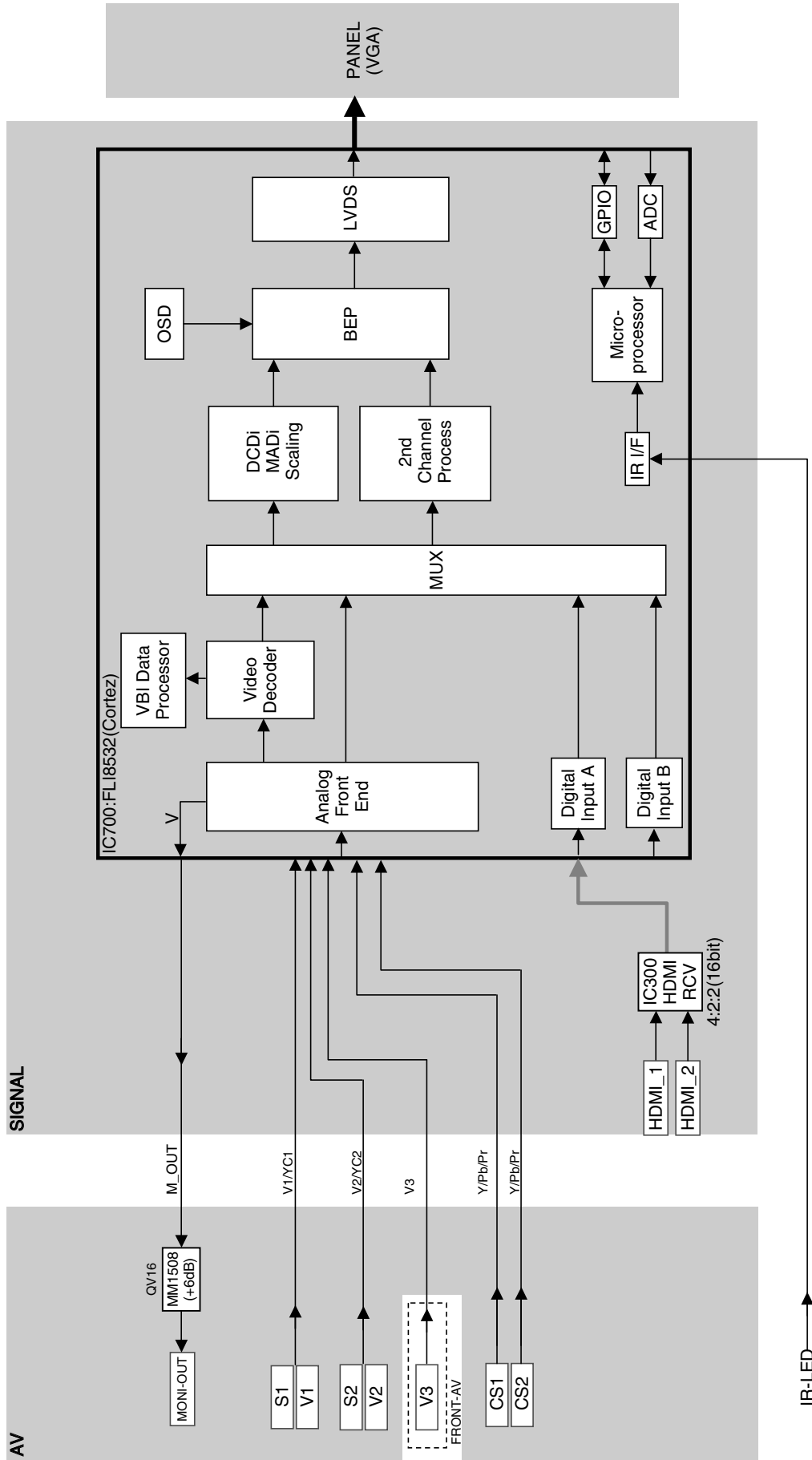
**NOTE:**

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.  
1/2R = Metal or Metal oxide of 1/2 watt                      1/2S = Carbon composition of 1/2 watt  
1RF = Fuse resistor of 1 watt                                      10W = Cement of 10 watt  
K =  $\pm 10\%$     G =  $\pm 2\%$     F =  $\pm 1\%$
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in  $\mu\text{F}$ , and the values more than 1 in pF.  
All capacitors are ceramic 50V, unless otherwise noted as the following marks.  
— $\overset{+}{|}$ — Electrolytic capacitor                      — $\overset{\circ}{|}$ — Mylar capacitor
3. The parts indicated with " $\Delta$ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassis ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary  $\pm 20\%$  except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

AV/AOUT	CONNECTOR	[SHEET-1/4] .....	1/47
	AV-TERMINAL	[SHEET-2/4] .....	2/47
	A-OUT	[SHEET-3/4] .....	3/47
	EXPANDER FOR PDP	[SHEET-4/4] .....	4/47
FRONT-AV .....			5/47
IR LED .....			6/47
KEY .....			7/47
LOWB .....			8/47
SIGNAL	ANALOG IN	[SHEET-200] .....	9/47
	D IN A	[SHEET-300] .....	10/47
	D IN B	[SHEET-301] .....	11/47
	HDMI (Link, I2C)	[SHEET-302] .....	12/47
	HDMI Rx#2 (Video/Audio)	[SHEET-303] .....	13/47
	HDMI Rx#3 (PWR,Audio)	[SHEET-304] .....	14/47
	HDMI AUDIO PLL	[SHEET-305] .....	15/47
	HDMI AUDIO DAC	[SHEET-306] .....	16/47
	HDMI AUDIO OUT	[SHEET-307] .....	17/47
	HDMI CONTROLLER	[SHEET-308] .....	18/47
	EEPROM1	[SHEET-309] .....	19/47
	EEPROM2	[SHEET-310] .....	20/47
	MICRO I/O	[SHEET-400] .....	21/47
	OCM MEMORY I/F	[SHEET-401] .....	22/47
	FLASH MEMORY	[SHEET-402] .....	23/47
	SYNC SEPA	[SHEET-403] .....	24/47
	E2P OTHER	[SHEET-404] .....	25/47
	STD-BY MICOR	[SHEET-405] .....	26/47
	CORTEZ REG 1	[SHEET-406] .....	27/47
	CORTEZ REG 2	[SHEET-407] .....	28/47
	CORTEZ REG 3	[SHEET-408] .....	29/47
	BOOT CONFIG	[SHEET-409] .....	30/47
	SERVICE CONNECTOR	[SHEET-410] .....	31/47
	I2C Switch	[SHEET-411] .....	32/47
	STBY MICRO for DVD internal	[SHEET-412] .....	33/47
	DVD 10pin connector	[SHEET-413] .....	34/47
	I2C Level shift	[SHEET-414] .....	35/47
	AUDIO	[SHEET-600] .....	36/47
	AUDIO MSP	[SHEET-601] .....	37/47
	CORTEZ 1	[SHEET-700] .....	38/47
	CORTEZ 2	[SHEET-701] .....	39/47
	DDR I/F	[SHEET-702] .....	40/47
	DDR SDRAM	[SHEET-703] .....	41/47
	DDR TERMINATION	[SHEET-704] .....	42/47
	DCDC CONV.	[SHEET-802] .....	43/47
	LVDS OUT	[SHEET-900] .....	44/47
	LVDS OUT(SHARP LCD)	[SHEET-901] .....	45/47
	Power Connector and Dimming	[SHEET-902] .....	46/47
	LVDS Power and Others	[SHEET-903] .....	47/47

# CIRCUIT BLOCK DIAGRAM



**TOSHIBA CORPORATION**  
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN