

TOSHIBA

FILE NO. 020-200521
Revision 1

SERVICE MANUAL

Plasma Monitor



42DPC85

TABLE OF CONTENTS

| | |
|--|----|
| SERVICE SAFETY PRECAUTIONS | 3 |
| SERVICE MODE | 5 |
| LAYOUT OF MAJOR BOARDS | 10 |
| MECHANICAL DISASSEMBLY | 11 |
| EXPLODED VIEW | 13 |
| PACKING DISASSEMBLY | 15 |
| CHASSIS AND CABINET REPLACEMENT PARTS LIST | 16 |
| PC BOARDS TOP & BOTTOM VIEW | 19 |
| CIRCUIT BLOCK DIAGRAM | 33 |
| APPENDIX: | |
| SCHEMATIC DIAGRAM | |




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.

| | |
|--|---|
|  WARNING | 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. |
|  CAUTION | 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

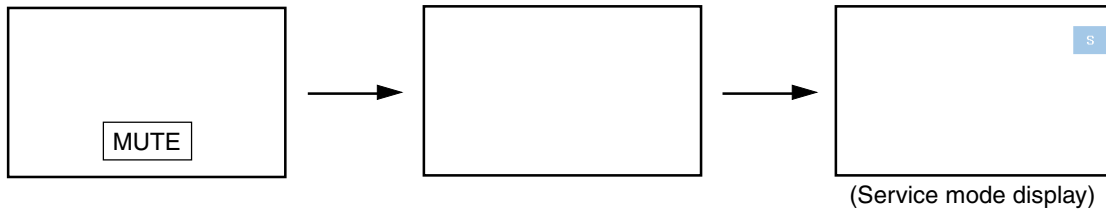
| | |
|--|---|
|  SHOCK HAZARD | The Δ indicates caution (including danger and warning). The actual meaning of this caution is indicated inside the Δ or nearby illustrations or text. The example shown to the left indicates the danger of "electrical shock". |
|  PROHIBIT DISASSEMBLING | The \ominus indicates 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. |
|  UNPLUG | 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. |

|  WARNING | |
|---|--|
|  KEEP CHILDREN AWAY | <ul style="list-style-type: none"> Always advise users to keep children away. There is danger of injury to children from tools, disassembled products, etc. |
|  UNPLUG | <ul style="list-style-type: none"> 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. |
|  SHOCK HAZARD | <ul style="list-style-type: none"> 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. |
|  USE SPECIFIED PARTS | <ul style="list-style-type: none"> 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. |
|  CAUTION FOR WIRING | <ul style="list-style-type: none"> 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. |
|  CAUTION FOR ASSEMBLING / WIRING | <ul style="list-style-type: none"> 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. |
|  CHECK INSULATION RESISTANCE | <ul style="list-style-type: none"> 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. |
|  PROHIBIT REMODELING | <ul style="list-style-type: none"> Never remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous |

SERVICE MODE

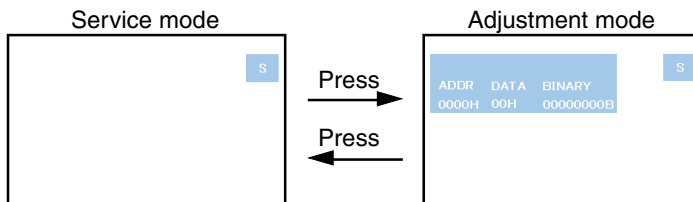
1. ENTERING SERVICE MODE

- 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

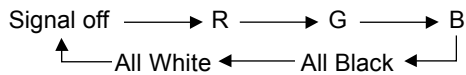
After replacing EEPROM IC, the following initialization is required.

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

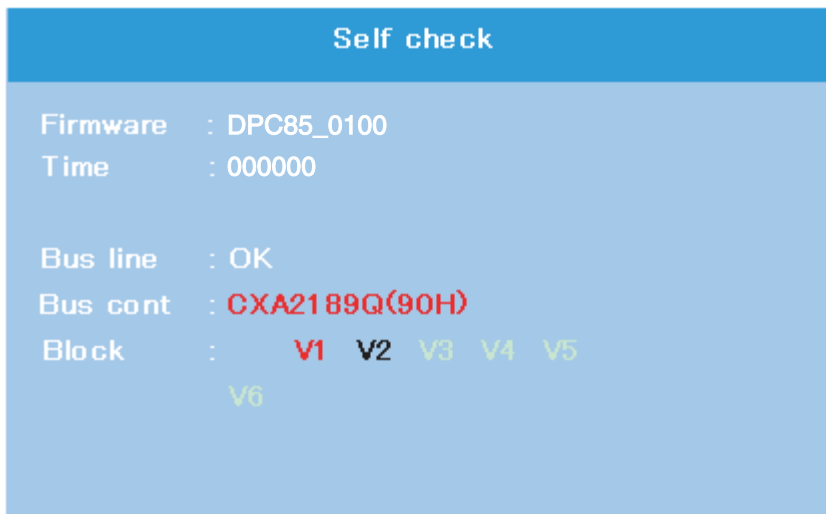
- 1) Every pressing of TV/VIDEO button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.



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

8. SELF DIAGNOSTIC FUNCTION

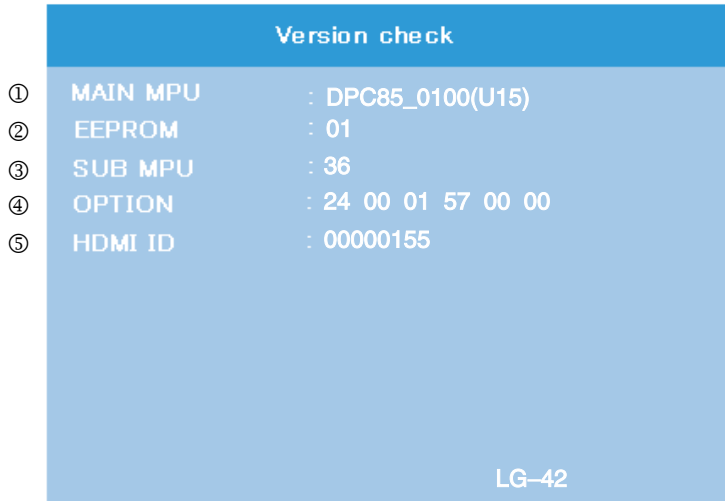
- 1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
The diagnosis will begin to check if interface among IC's is executed properly.
- 2) During diagnosis, the following displays are shown.



- 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 :

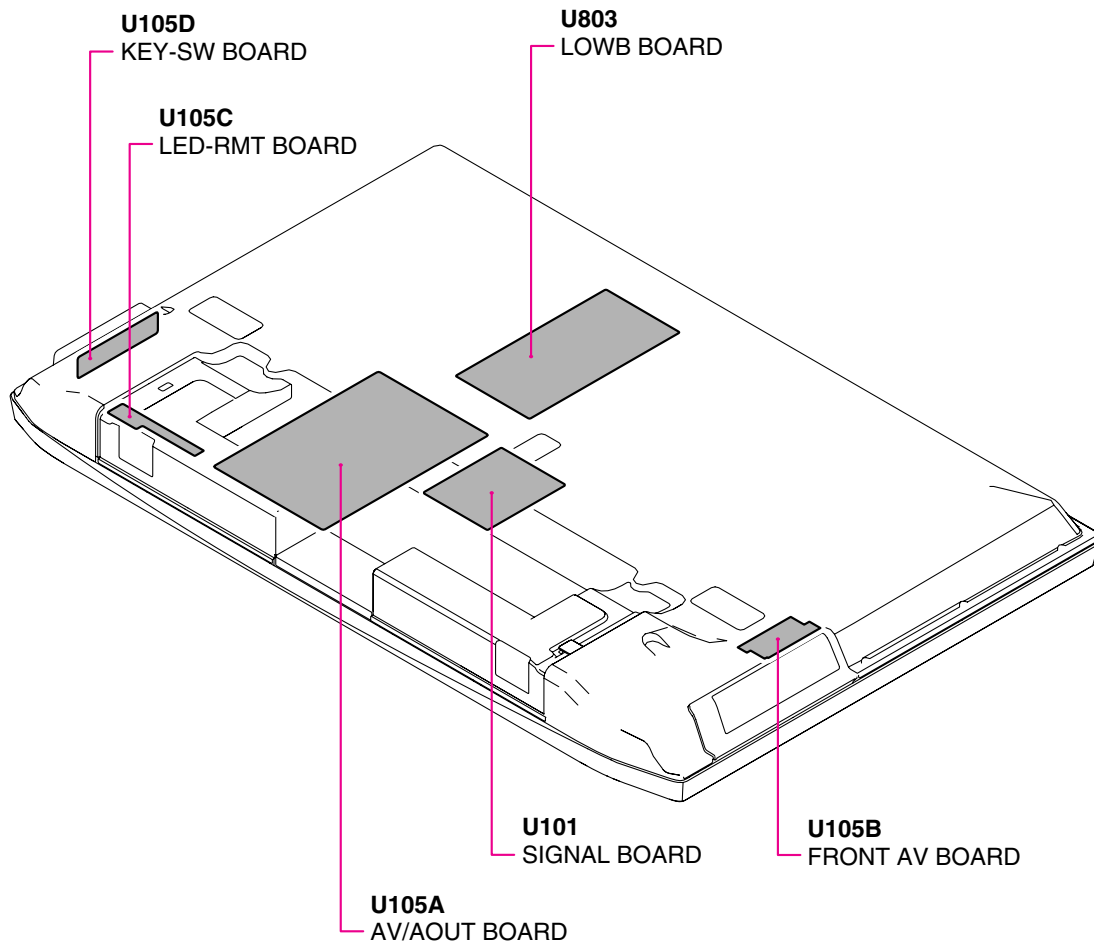
Display the screen size as follows.

| |
|----------------|
| Theater Wide 1 |
| Theater Wide 2 |
| Theater Wide 3 |
| FULL |
| NATURAL |

④ OTHER STATUS :

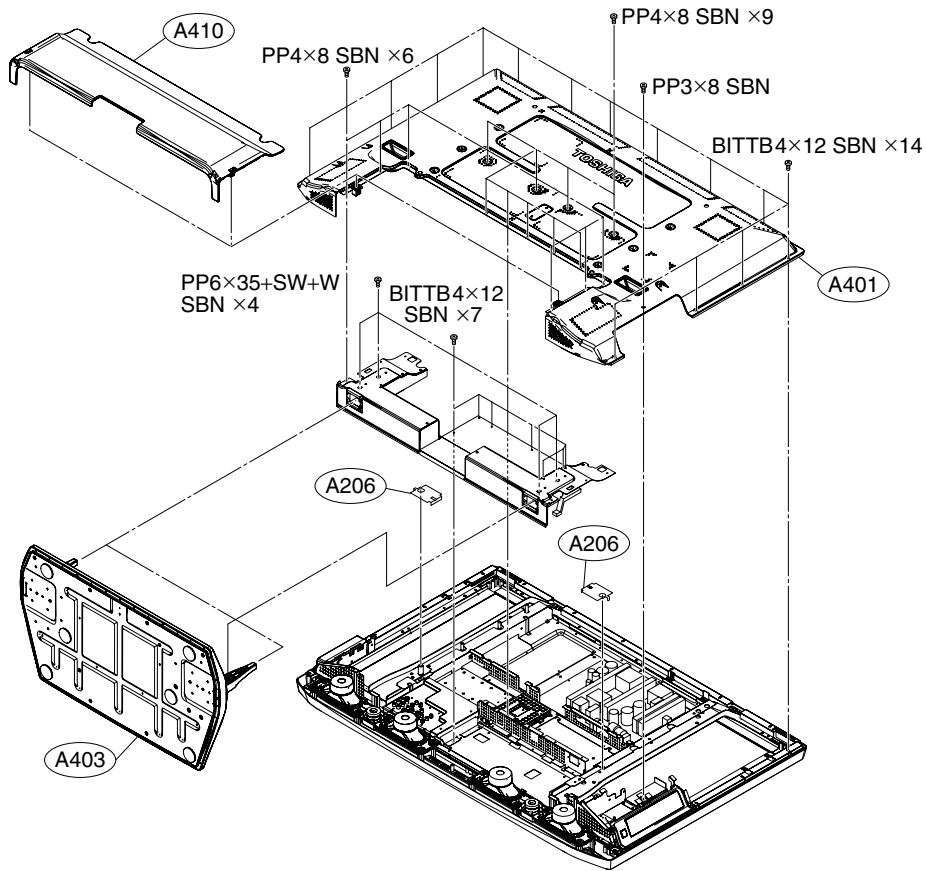
Other status information : Display three numbers of 2 byte data.

LAYOUT OF MAJOR BOARDS

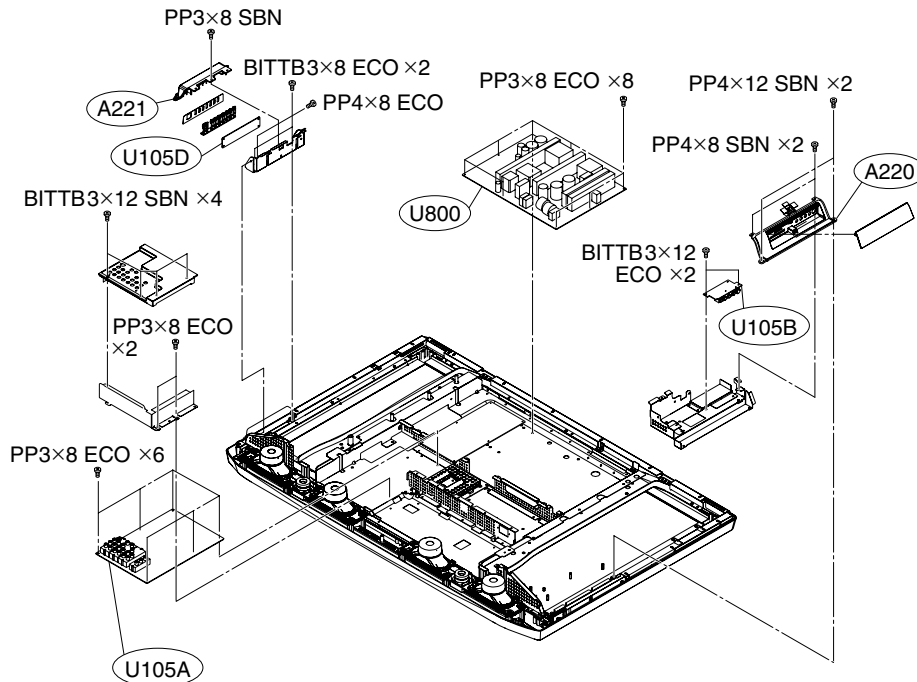


MECHANICAL DISASSEMBLY

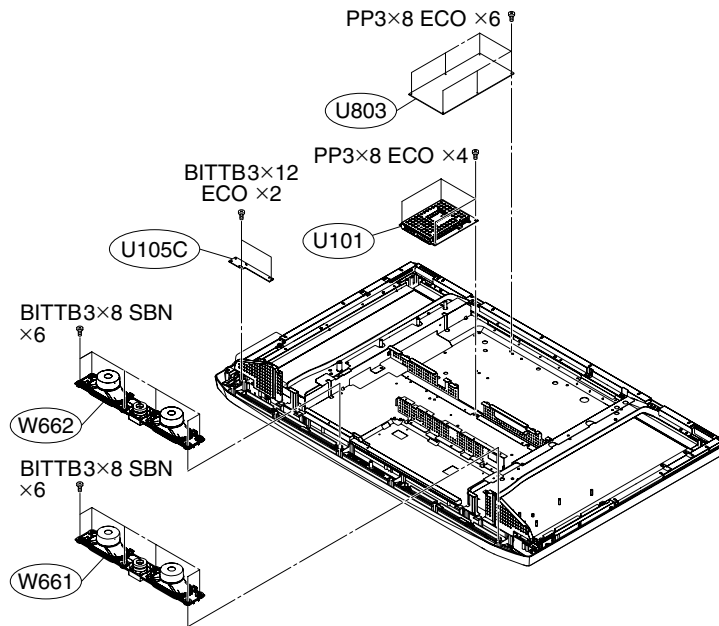
1. Remove the stand (foot) and back cover.



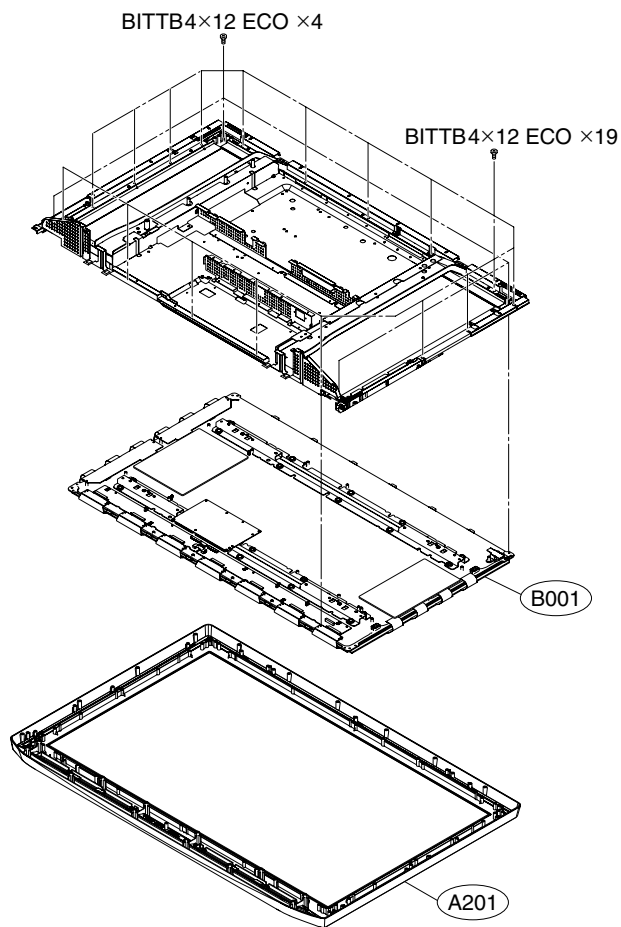
2. Remove the boards (AV/AOUT, FRONT AV, KEY-SW) and piece key ass'y.



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

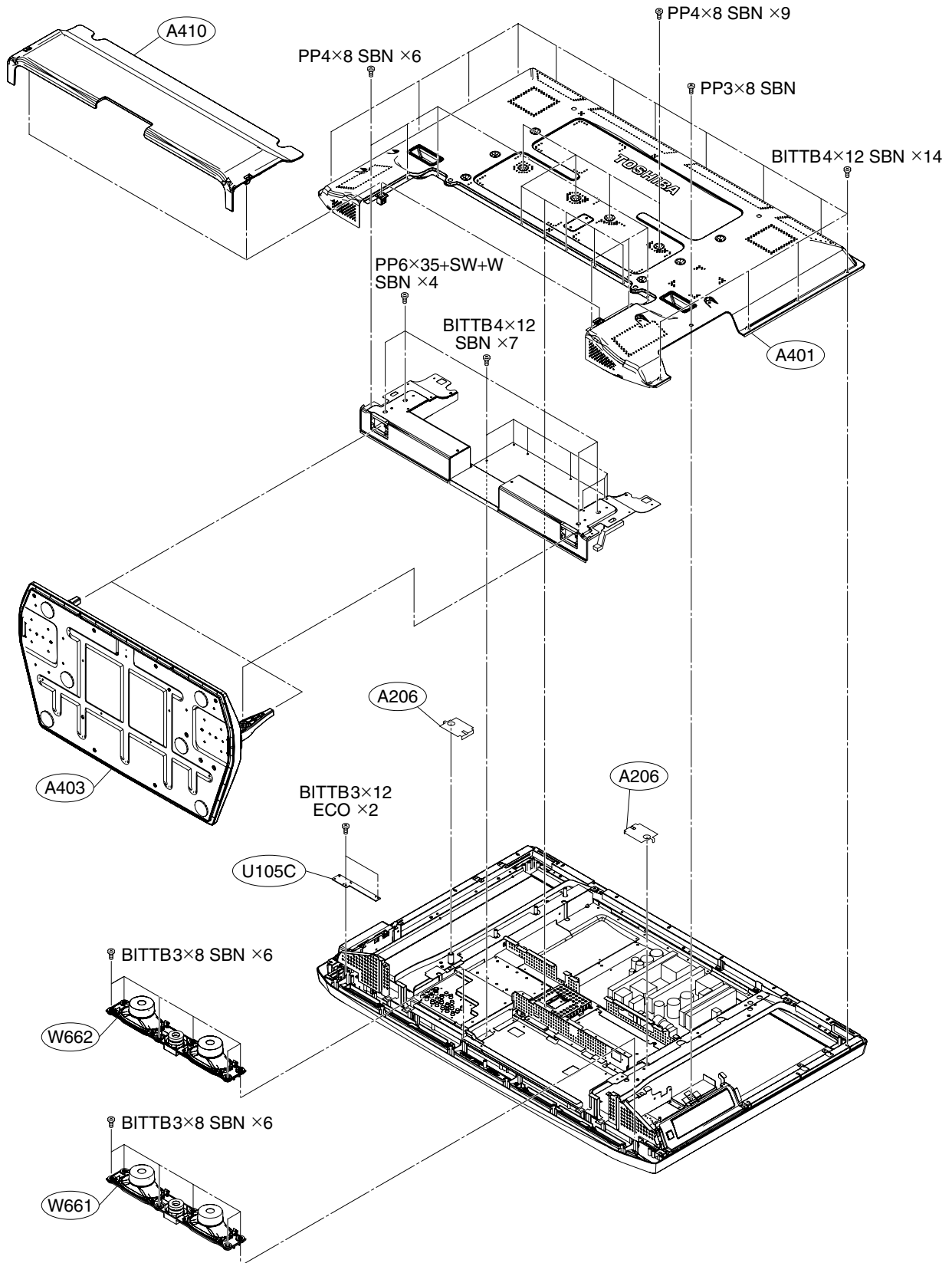


4. Remove the display.

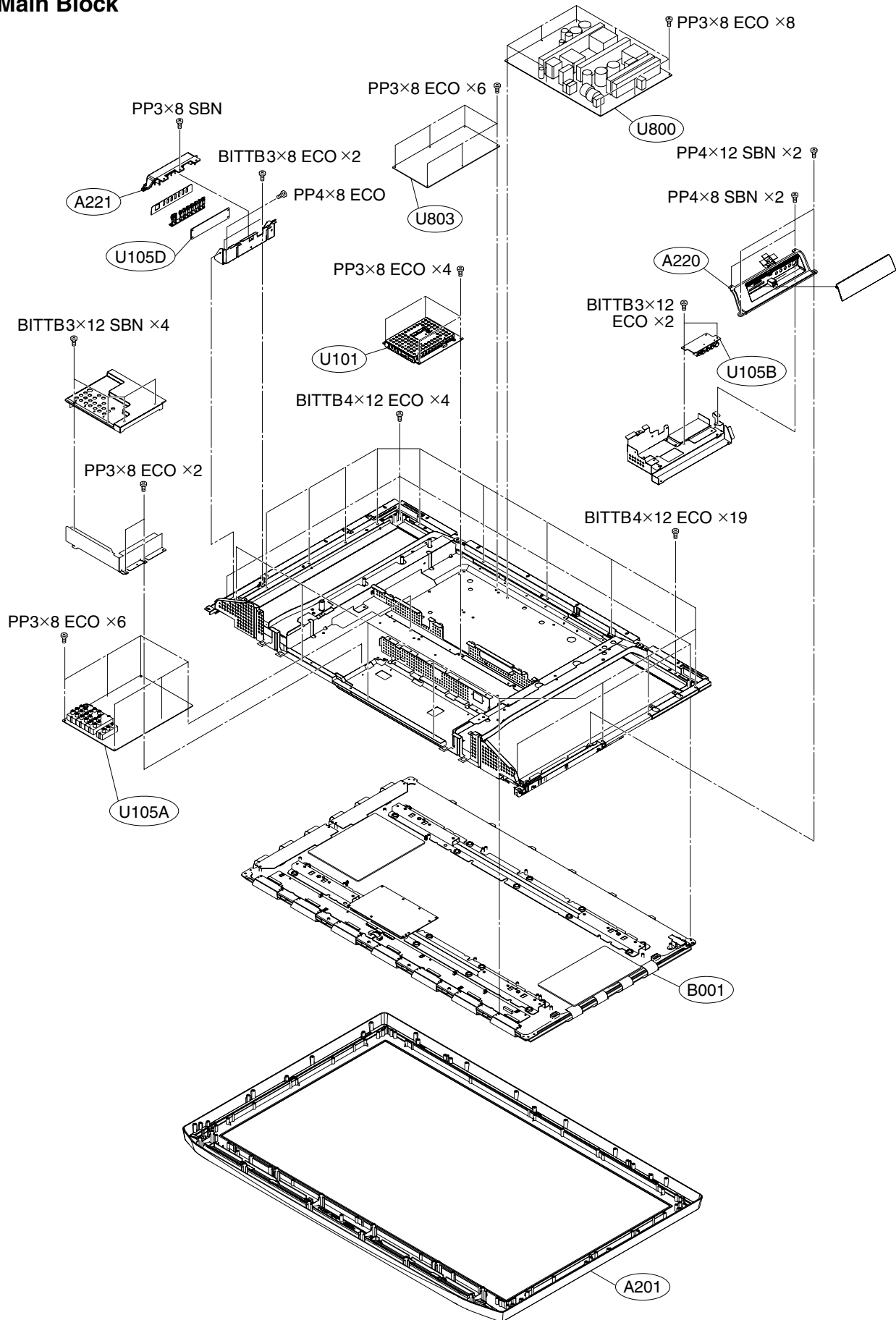


EXPLODED VIEWS

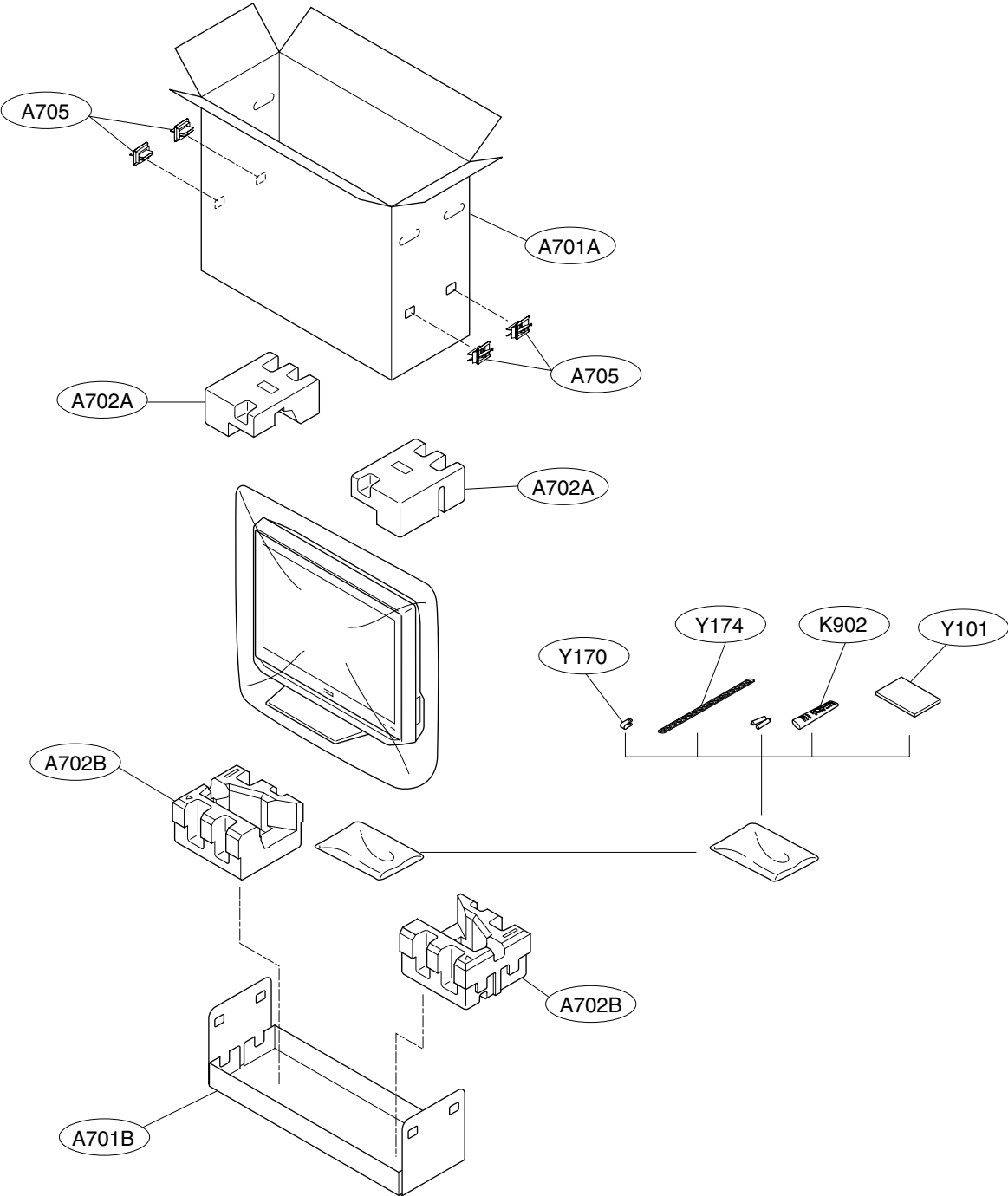
1. Chassis Block



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 |
|-------------------|-----------|---------------------------------|
| CAPACITORS | | |
| 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 |
| RESISTORS | | |
| 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 |

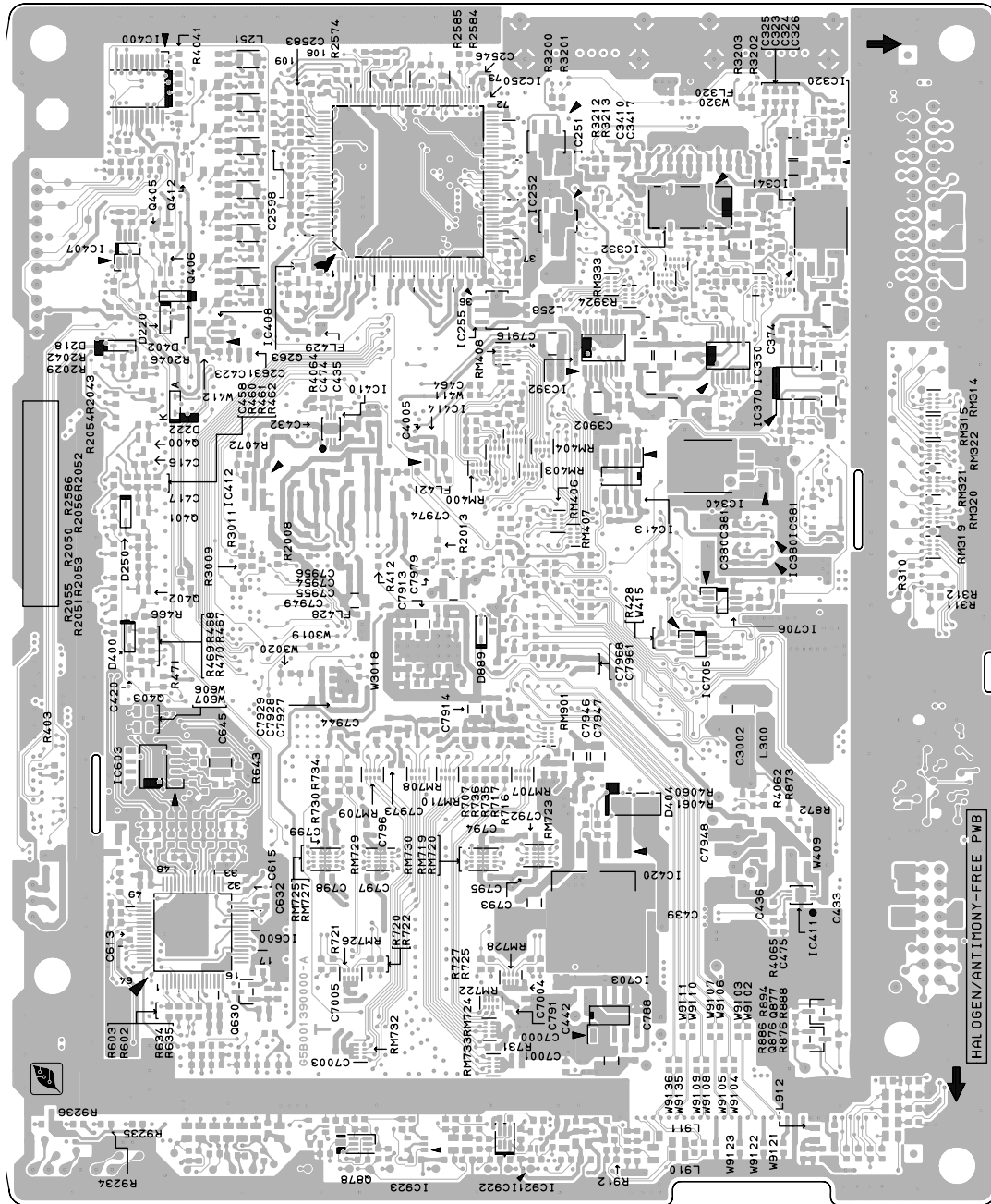
| Location No. | Parts No. | Description |
|--------------|-----------|------------------------|
| R288 | 76871750 | CHIP, 1/8W 75 OHM J |
| R657 | 76011473 | CHIP, 1/20W 47K OHM J |
| R658 | 76011473 | CHIP, 1/20W 47K OHM J |
| R659 | 76011103 | CHIP, 1/20W 10K OHM J |
| R664 | 76011104 | CHIP, 1/20W 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 |
| COIL & TRANSFORMERS | | |
| 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 |
| SEMICONDUCTORS | | |
| 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 |
| MISCELLANEOUS | | |
| △ 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 |

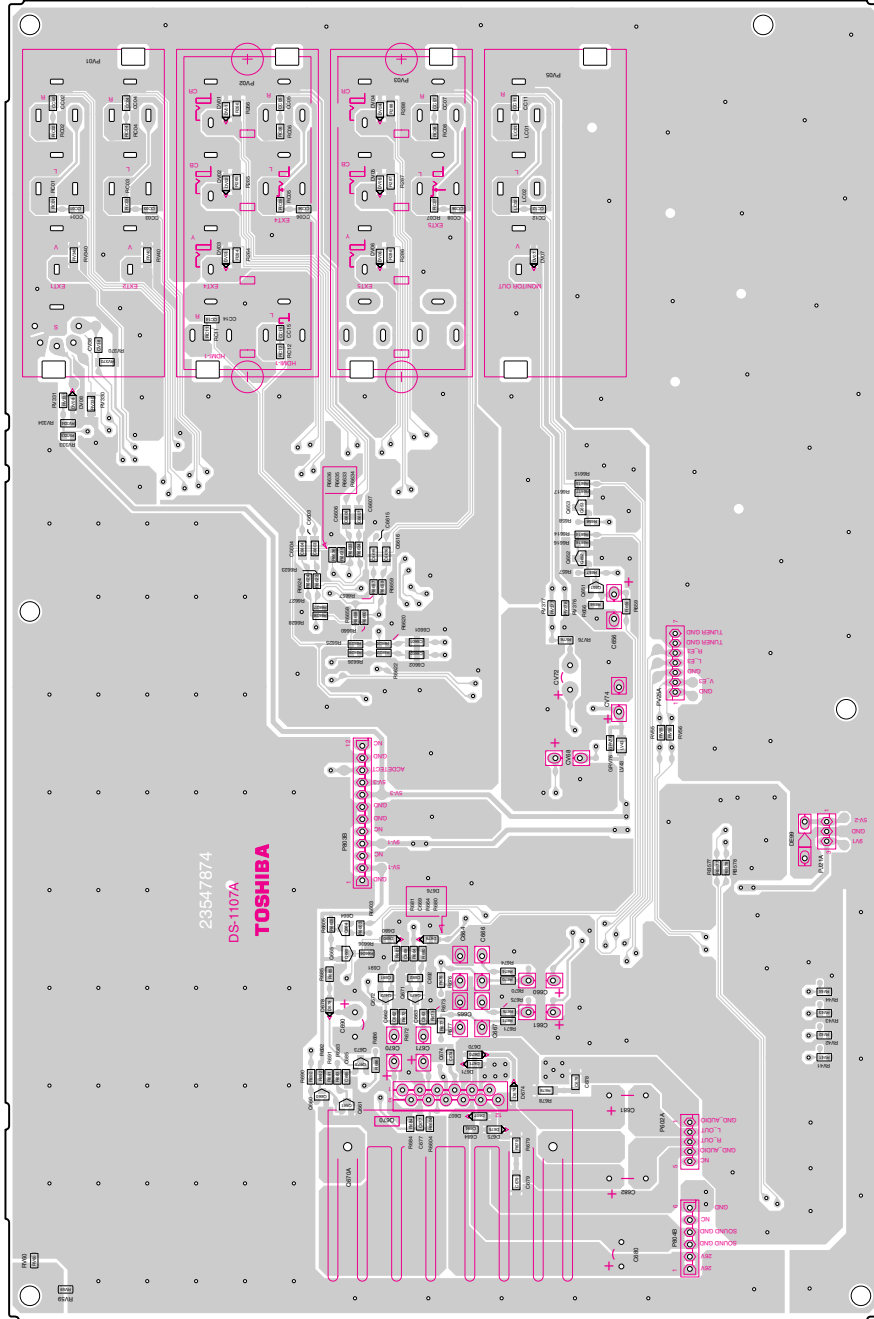
| Location No. | Parts No. | Description |
|----------------------------|-----------|--|
| △ P804B | 23713757 | PLUG, 6P 2.5MM G, B6B-EH-F1-TV4 |
| △ P807A | 23367072 | PLUG, NP 2.5MM G JST-EH, B12B-EH-F1A |
| △ P809A | 23367071 | PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A |
| △ P881 | 23023131 | INLET, NOISE 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 |
| PC BOARD ASSEMBLIES | | |
| * 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 |
| ACCESSORIES | | |
| 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 |
| CABINET PARTS | | |
| △ 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



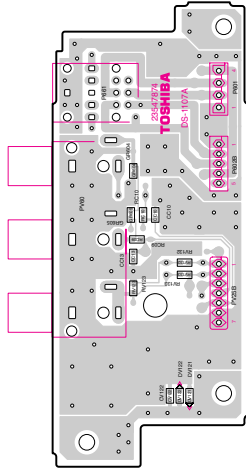
HALOGEN/ANTIMONY-FREE PWB

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



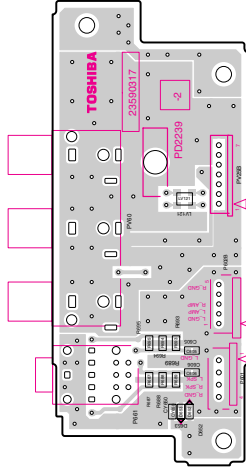
FRONT AV BOARD PD2239A2 (U105B)

BOTTOM (FOIL) SIDE



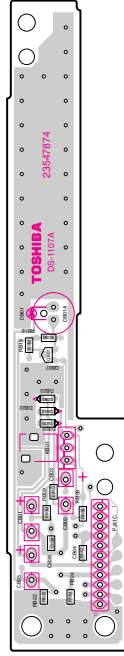
FRONT AV BOARD PD2239A2 (U105B)

TOP (COMPONENT) SIDE



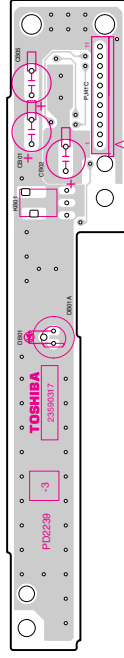
LED-RMT BOARD PD2239A3 (U105C)

BOTTOM (FOIL) SIDE



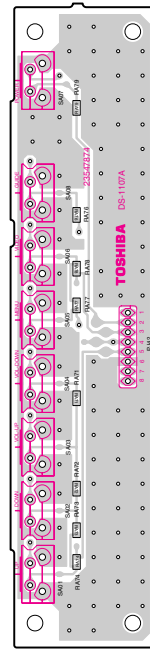
LED-RMT BOARD PD2239A3 (U105C)

TOP (COMPONENT) SIDE



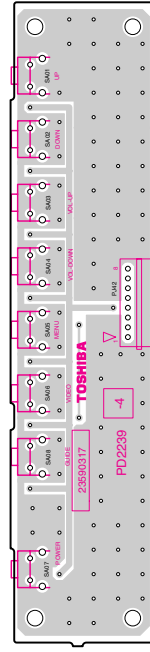
KEY-SW BOARD PD2239A4 (U105D)

BOTTOM (FOIL) SIDE

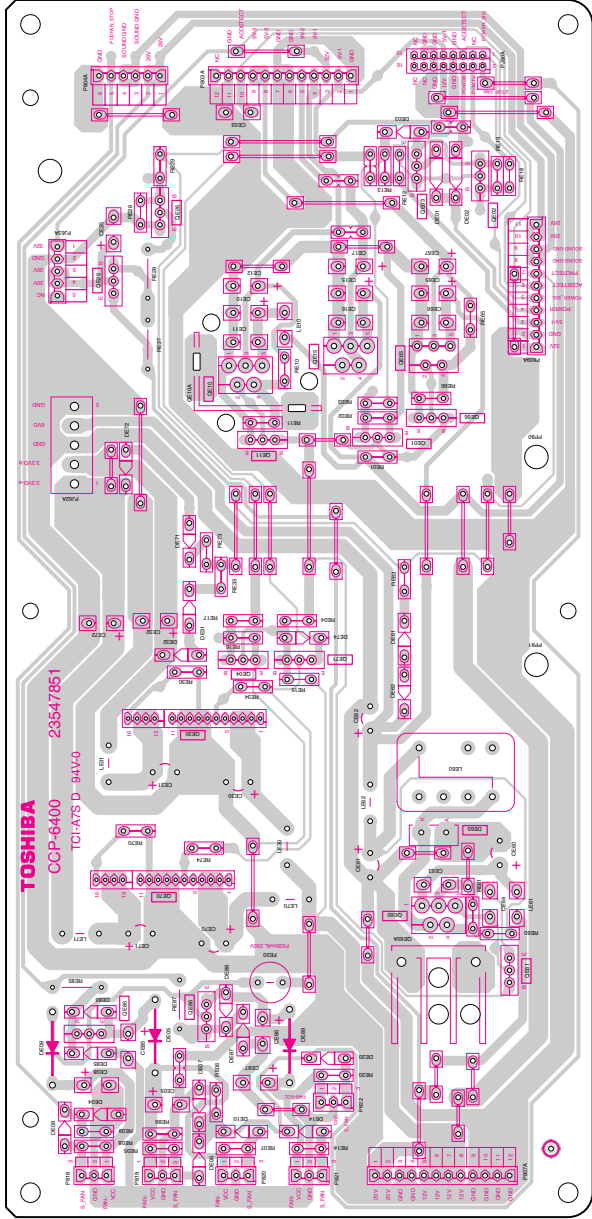


KEY-SW BOARD PD2239A4 (U105D)

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 " Δ " 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.

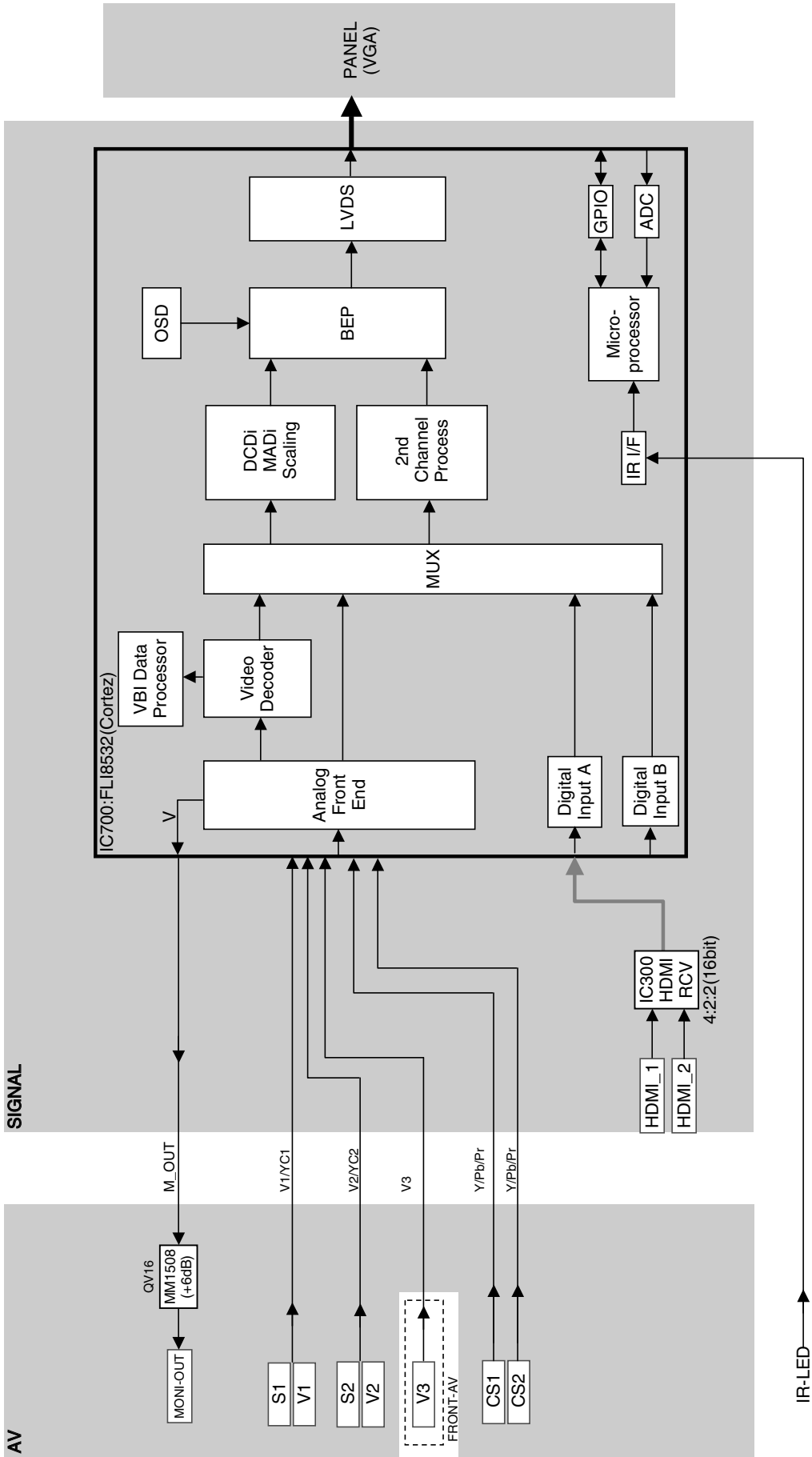
NOTE:

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 μF , and the values more than 1 in pF.
All capacitors are ceramic 50V, unless otherwise noted as the following marks.
— $\overset{+}{|}$ — Electrolytic capacitor — $\text{\textcircled{R}}$ — Mylar capacitor
3. The parts indicated with " Δ " 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