

# REVISION HISTORY

# WAX3 CHASSIS

MODEL	PART NO.: 9-872-959-01
KLV-26V300A	KLV-40V300A
KLV-32V300A	KLV-46V300A

# SERVICE MANUAL

# WAX3 CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>
KLV-26V300A	RM-GA008	E
KLV-26V300A	RM-GA008	Middle East
KLV-26V300A	RM-GA008	Ocenia
KLV-26V300A	RM-GA008	Saudi Arabia
KLV-32V300A	RM-GA008	E
KLV-32V300A	RM-GA008	Middle East
KLV-32V300A	RM-GA008	Ocenia
KLV-32V300A	RM-GA008	Saudi Arabia

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>
KLV-40V300A	RM-GA008	E
KLV-40V300A	RM-GA008	Middle East
KLV-40V300A	RM-GA008	Ocenia
KLV-40V300A	RM-GA008	Saudi Arabia
KLV-46V300A	RM-GA008	E
KLV-46V300A	RM-GA008	Middle East
KLV-46V300A	RM-GA008	Ocenia
KLV-46V300A	RM-GA008	Saudi Arabia



KLV-26/32V300A



KLV-40/46V300A



RM-GA008

LCD COLOR TV  
**SONY**<sup>®</sup>

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## OPERATING INSTRUCTIONS

### CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## USE CAUTION WHEN HANDLING THE LCD PANEL

When installing the LCD panel, be sure you are grounded by using a wrist band.

When installing the LCD panel on the wall, the LCD panel must be secured using the 4 mounting holes on the rear cover.

- 1). do not press on the panel or frame edge to avoid the risk of electric shock.
- 2). do not scratch or press on the panel with any sharp objects.
- 3). do not leave the module in high temperatures or in areas of high humidity for an extended period of time.
- 4). do not expose the LCD panel to direct sunlight.
- 5). avoid contact with water. It may cause a short circuit within the module.
- 6). disconnect the AC adapter when replacing the backlight (CCFL) or inverter circuit.

(High voltage occurs at the inverter circuit at 650Vrms)

- 7). always clean the LCD panel with a soft cloth material.
- 8). use care when handling the wires or connectors of the inverter circuit. Damaging the wires may cause a short.
- 9). protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

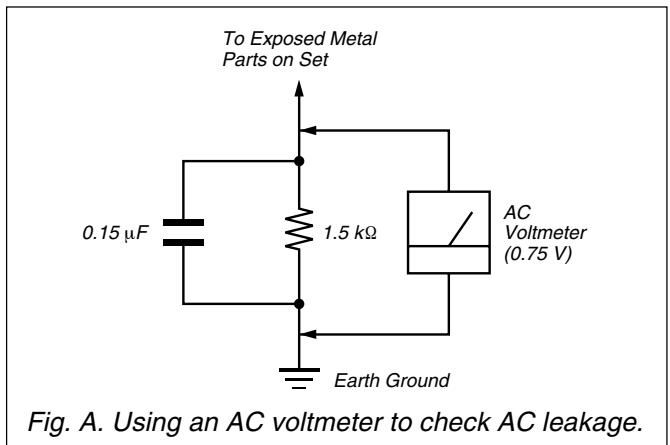


Fig. A. Using an AC voltmeter to check AC leakage.

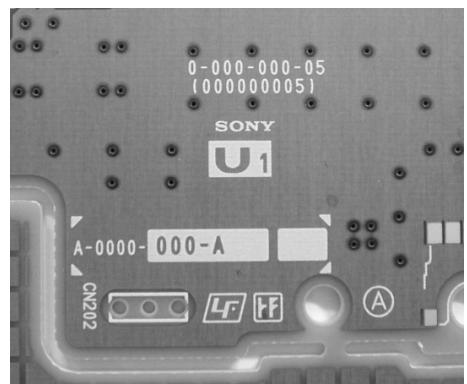
## WARNING!!

**SAFETY-RELATED COMPONENT WARNING!!**  
**COMPONENTS IDENTIFIED BY SHADING AND MARK △ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.**

**CAUTION**

**example 1**

The circuit boards used in these models have been processed using Lead Free Solder. The boards are identified by the LF logo located close to the board designation e.g. U1 etc [ see example ]. The servicing of these boards requires special precautions to be taken as outlined below.



It is strongly recommended to use Lead Free Solder material in order to guarantee optimal quality of new solder joints.  
Lead Free Solder is available under the following part numbers :

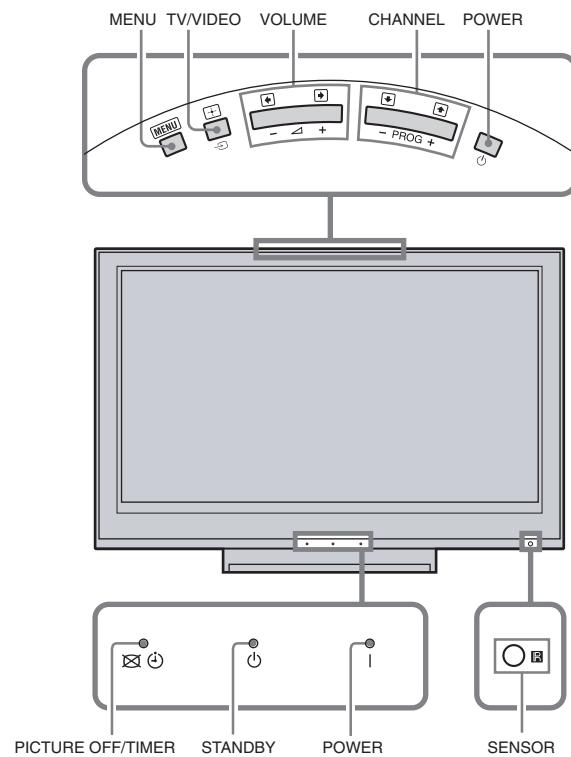
Part number	Diameter	Remarks
7-640-005-19	0.3mm	0.25Kg
7-640-005-20	0.4mm	0.50Kg
7-640-005-21	0.5mm	0.50Kg
7-640-005-22	0.6mm	0.25Kg
7-640-005-23	0.8mm	1.00Kg
7-640-005-24	1.0mm	1.00Kg
7-640-005-25	1.2mm	1.00Kg
7-640-005-26	1.6mm	1.00Kg

Due to the higher melting point of Lead Free Solder the soldering iron tip temperature needs to be set to 370 degrees centigrade. This requires soldering equipment capable of accurate temperature control coupled with a good heat recovery characteristics.

For more information on the use of Lead Free Solder, please refer to <http://www.sony-training.com>

## SELF DIAGNOSTIC FUNCTION

### Control Buttons



### Description of LED Indicators

LED	LED Descriptions	Lighting Spec Overviews
Power/REC/ Timer REC LED	Red/Green: two LEDS	Green Lights at power ON. Red Lights during REC. Amber Lights during Timer Recording. Aging-failure notice.
STANDBY LED	Red: One LED	Lights during standby. Aging-failure notice.
Timer/Picture OFF/ Communication LED	Red/Green: two LEDS	Red Lights during Timer activation. Amber Lights during Picture OFF. Amber Lights during communication. Communication LED is controlled by a main-micro in response to the blinking/Lighting commands from EMMA.

### LED display control

STATUS	POWER LED	STANDBY LED	NOTES
Power On	Green Lights	Off	Microcomputer is in a normal state. (*1)
Standby	Off	Red Lights	Microcomputer is in a Sleep state.
Aging	Green flashes	Off	Classify the aging time by the green-blinking patterns (see descriptions below)
Failure	Off	Red flashes	Classify the trouble causes by the number of Red blinking (see descriptions below)

(\*1) This status is no more described here for various statuses are detected with only three LED.

When safety shutdown occurs, LED display reports the cause by using the Lighting patterns as indicated below. Since there are various failure items in WAX model. Light blinking is used so that shutdown causes can be judged from the number of blinking times. The items corresponding to the number of blinking times are indicated as follows

### Failure LED Displays

MONITORING ITEMS	NUMBER OF STANDBY LED (RED) BLINKING TIMES
Main power supply voltage error	2
DC_ALERT 1	3
DC_ALERT 2	4
DC_ALERT 3	5
Backlight error	6
Internal temperature error	7
Audio error	8
Fan error (HFR model only)	9
Digital FE error	10
Trident error	11

\*Each of the above blinking is repeated every 2 seconds

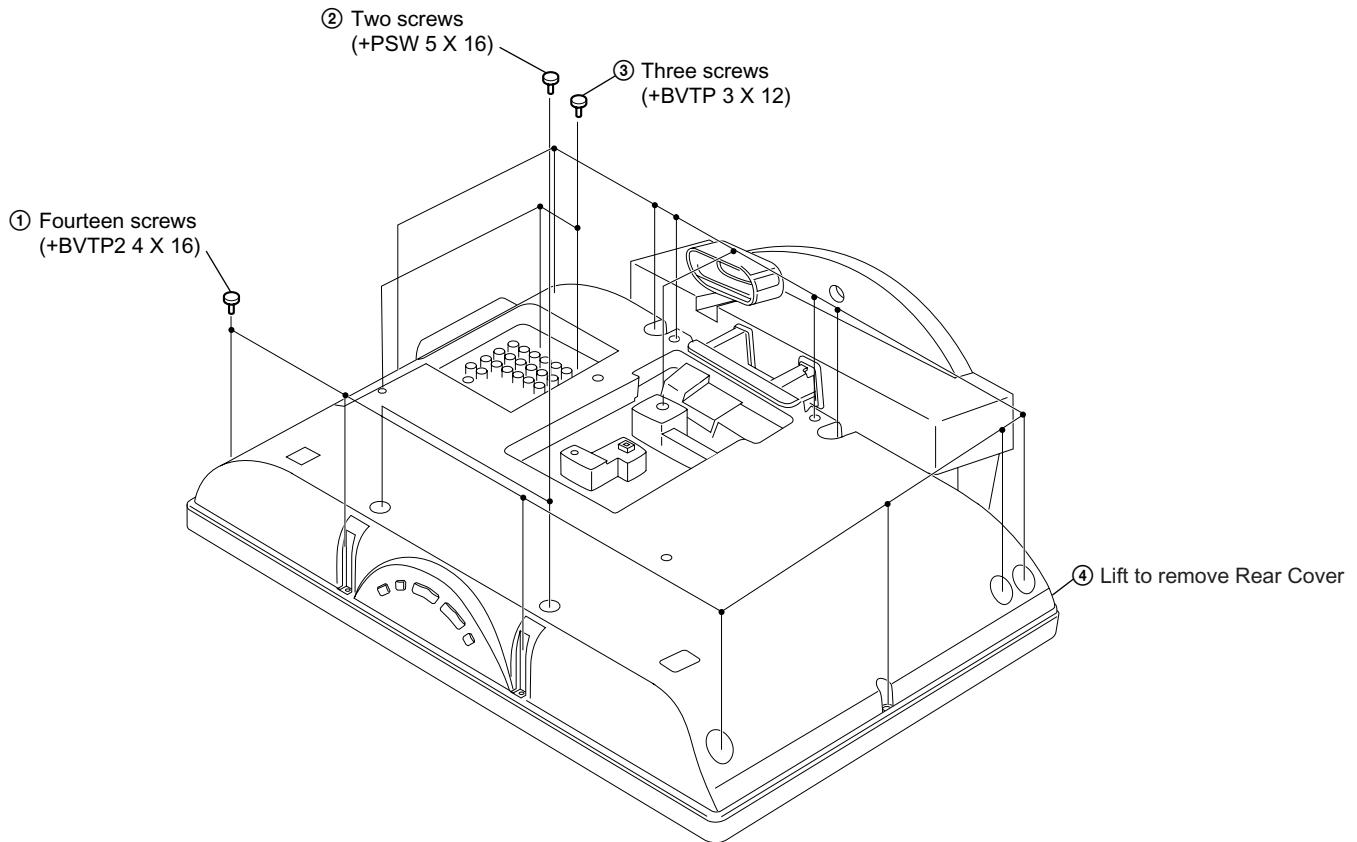
### LED displays during Aging

Condition	LED Displays
When AGING_TIMER > 0	Green (0.5 Sec) → Off (0.5 sec) → Green (0.5 sec) → Off (0.5 sec)
When AGING_TIMER = 0	Green (3.0 sec) → Off (3.0 sec) → Green (3.0 sec) → Off (3.0 sec)

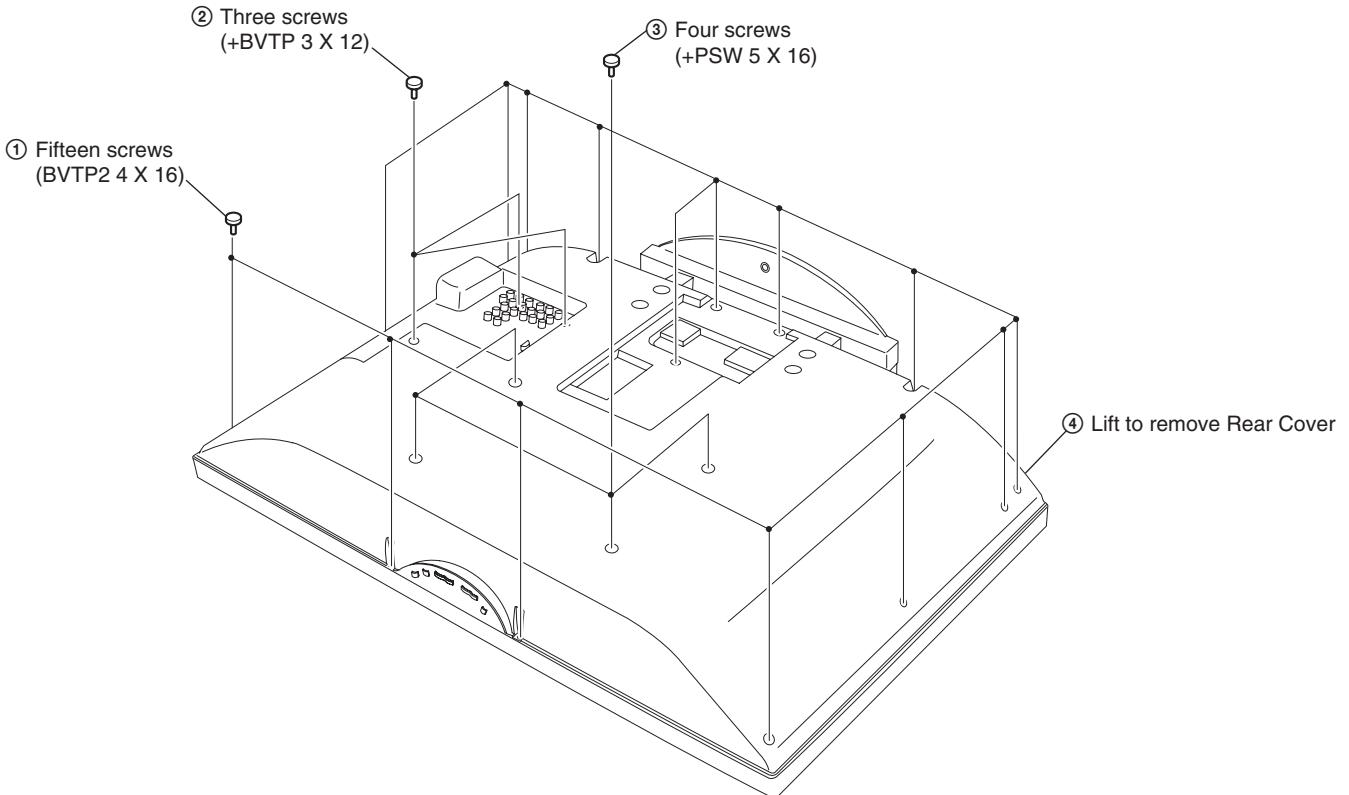
## SECTION 1 DISASSEMBLY

### 1-1. REAR COVER REMOVAL

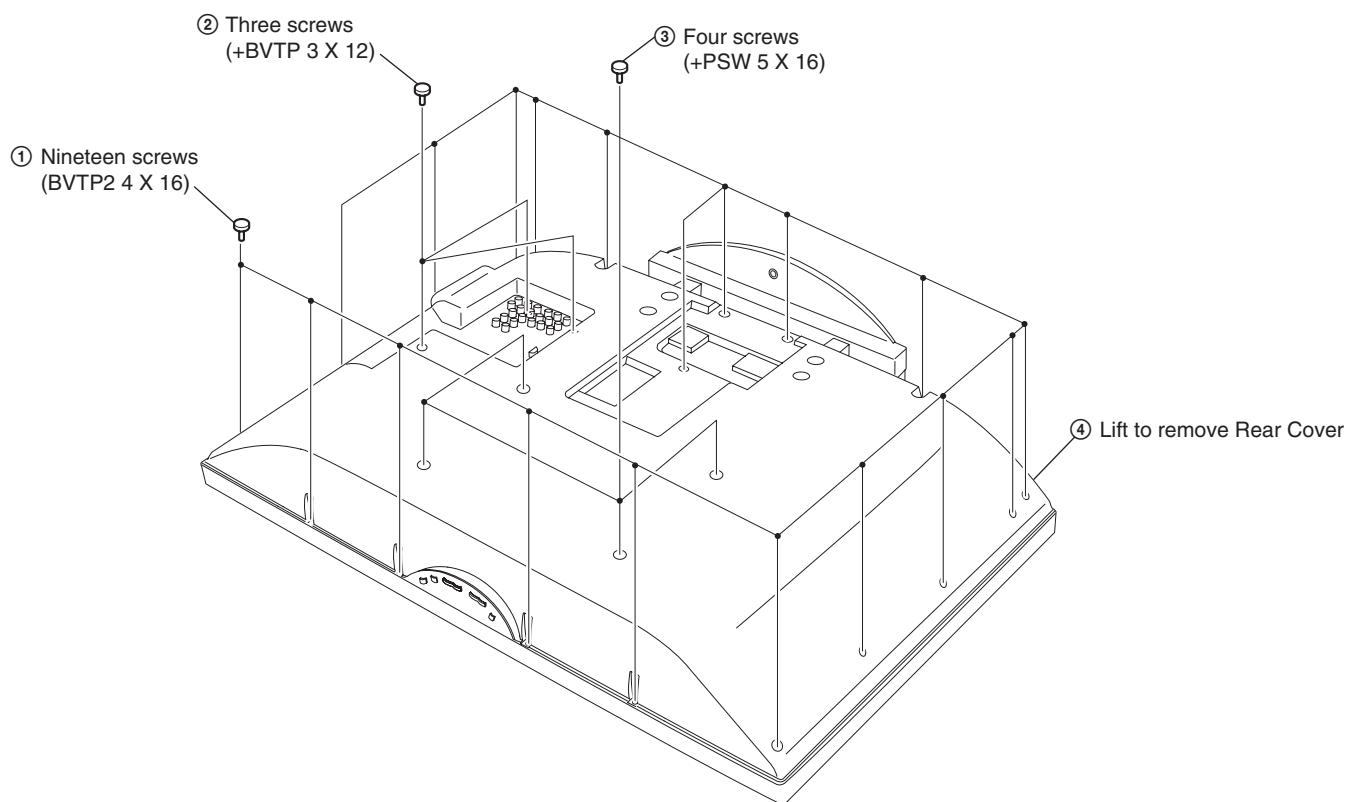
#### (a) KLV-26/32V300A



#### (b) KLV-40V300A

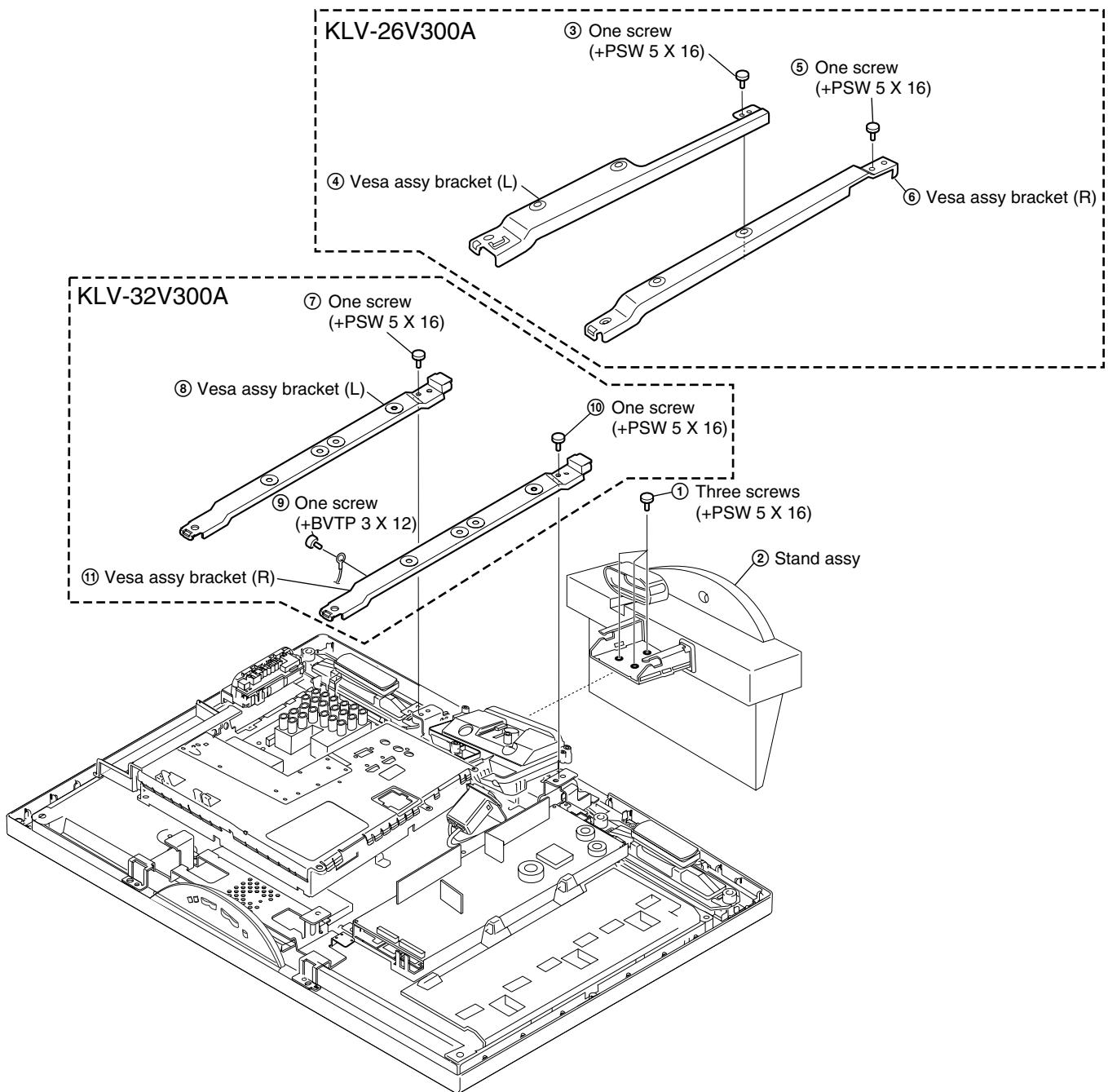


**(c) KLV-46V300A**

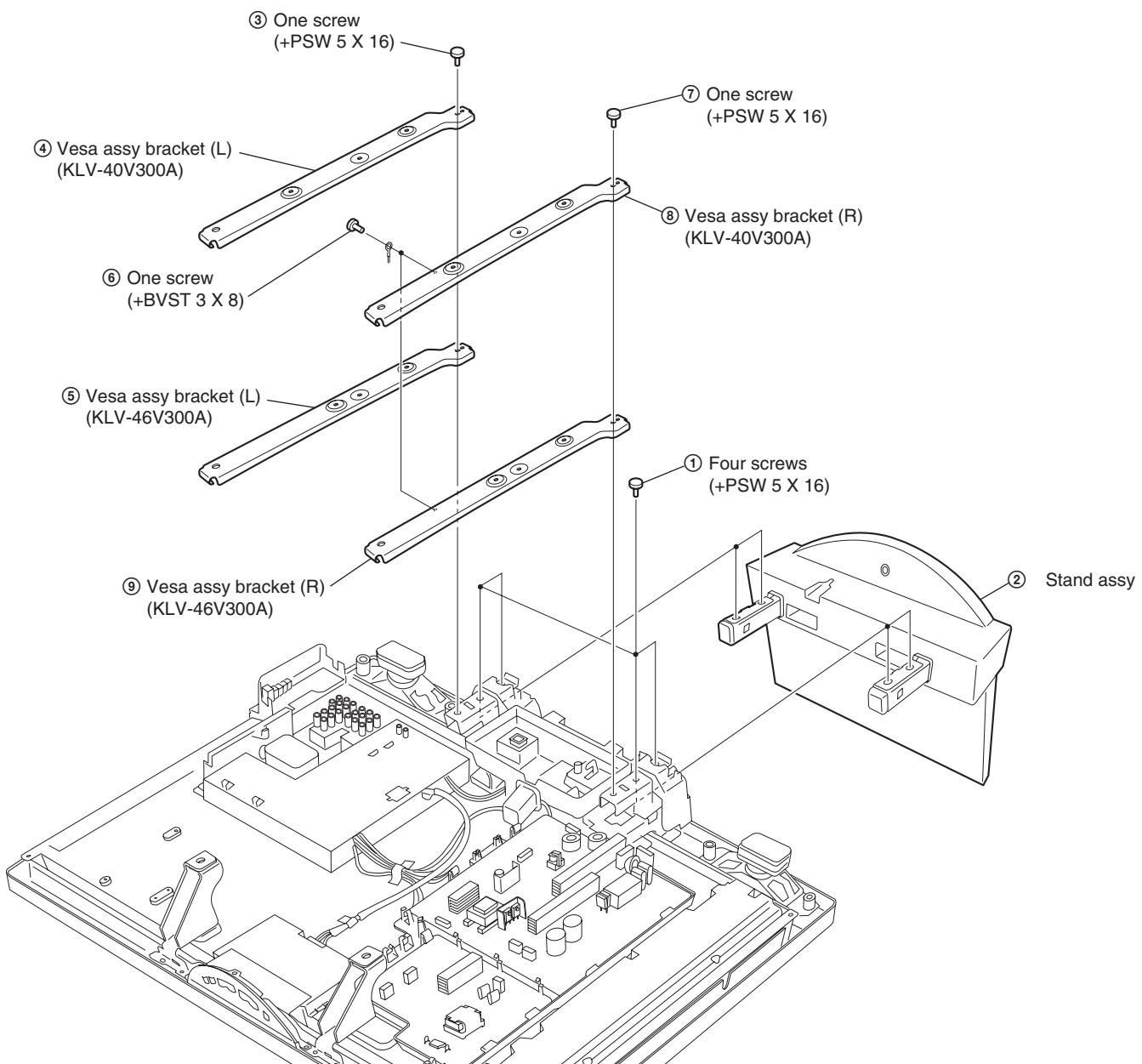


## 1-2. VESA BRACKET ASSEMBLY REMOVAL

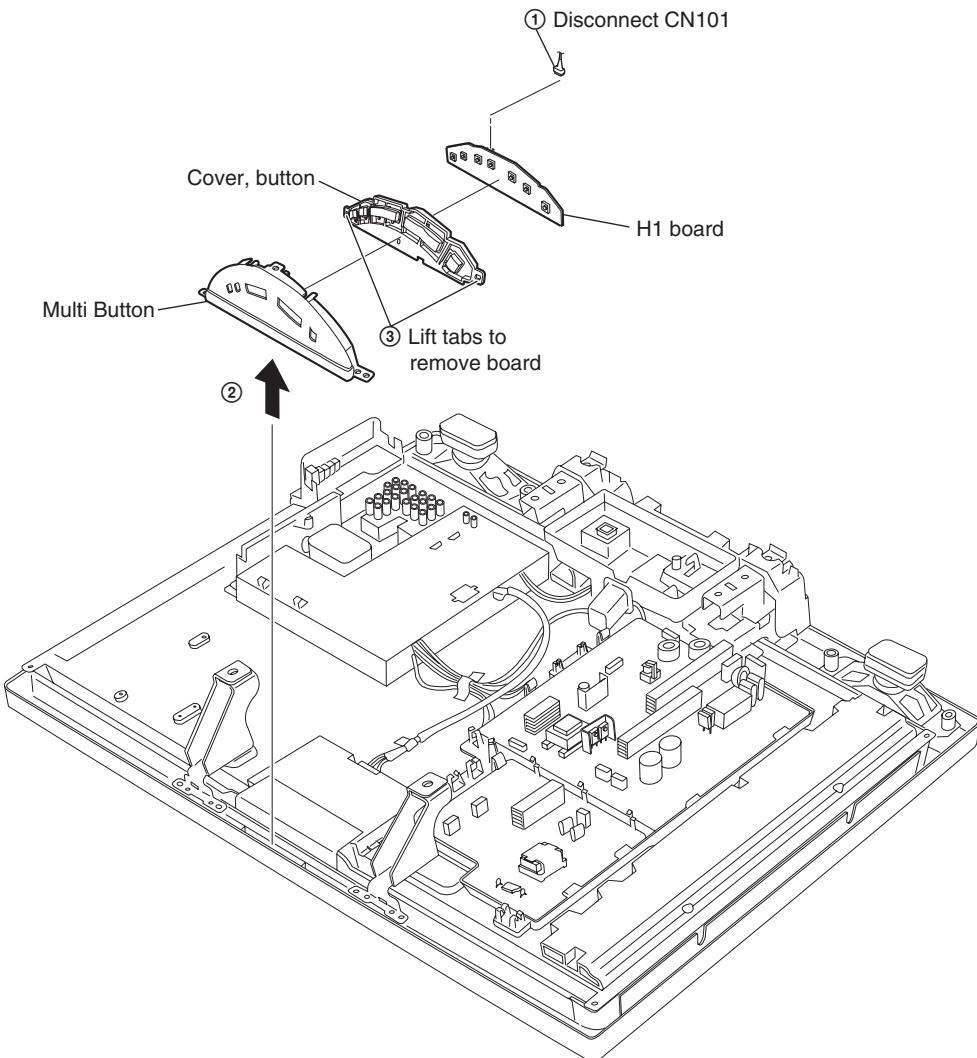
### (a) KLV-26/32V300A



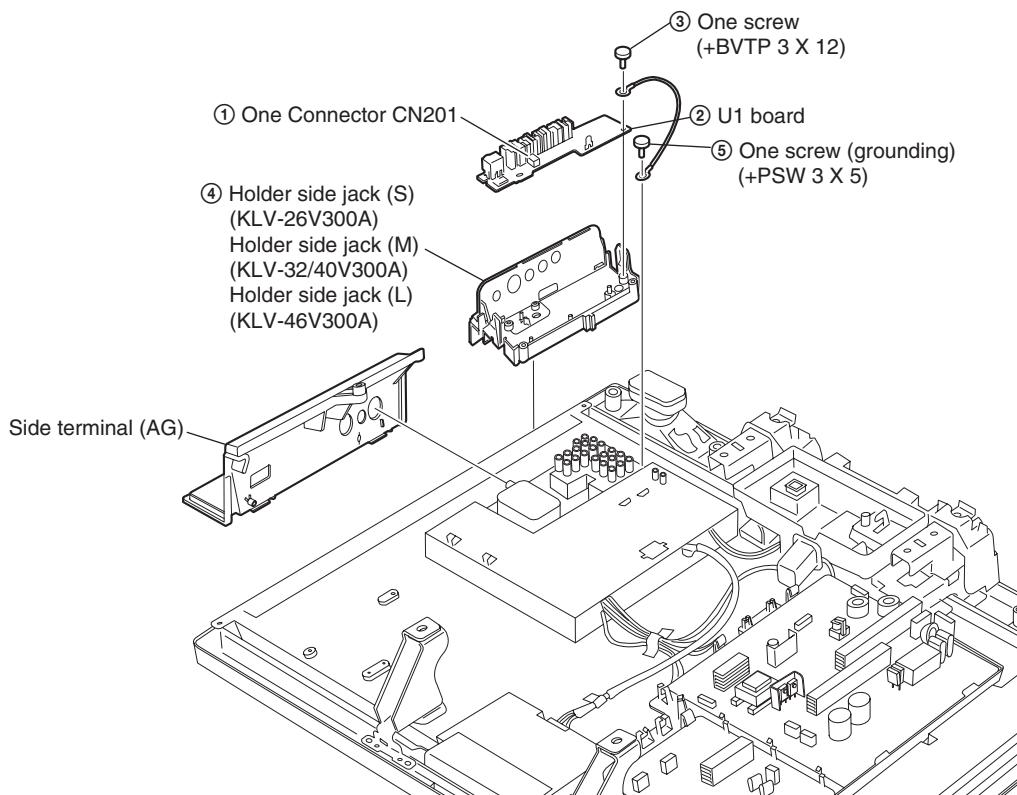
**(b) KLV-40/46V300A**



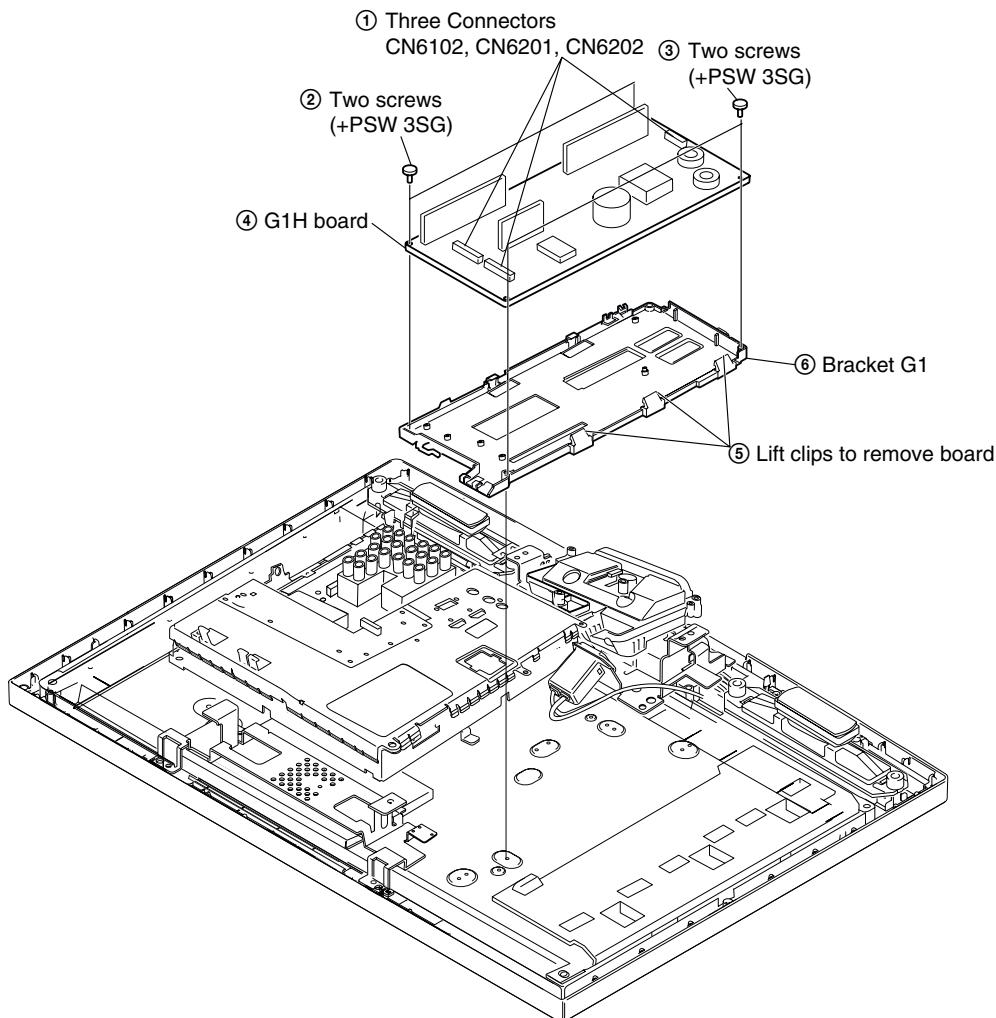
### 1-3. H1 BOARD REMOVAL



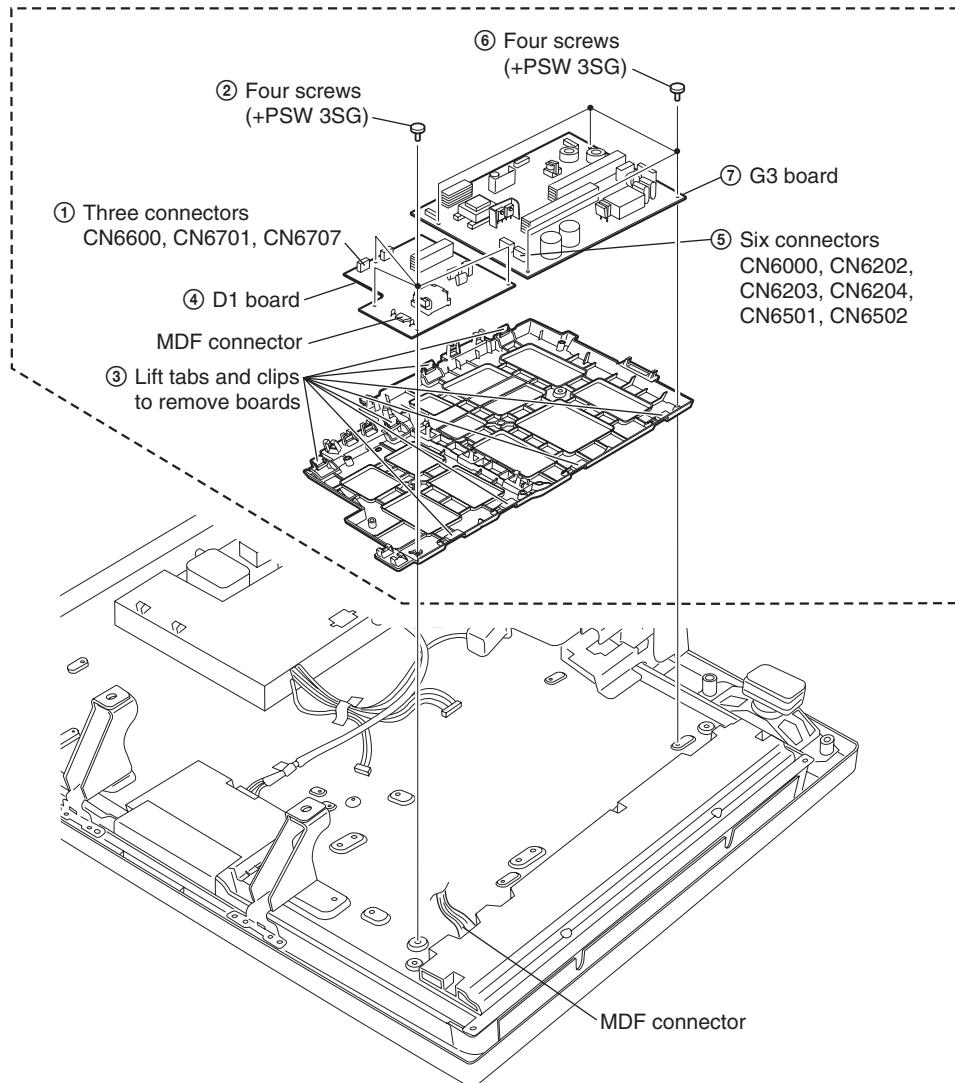
### 1-4. U1 BOARD REMOVAL



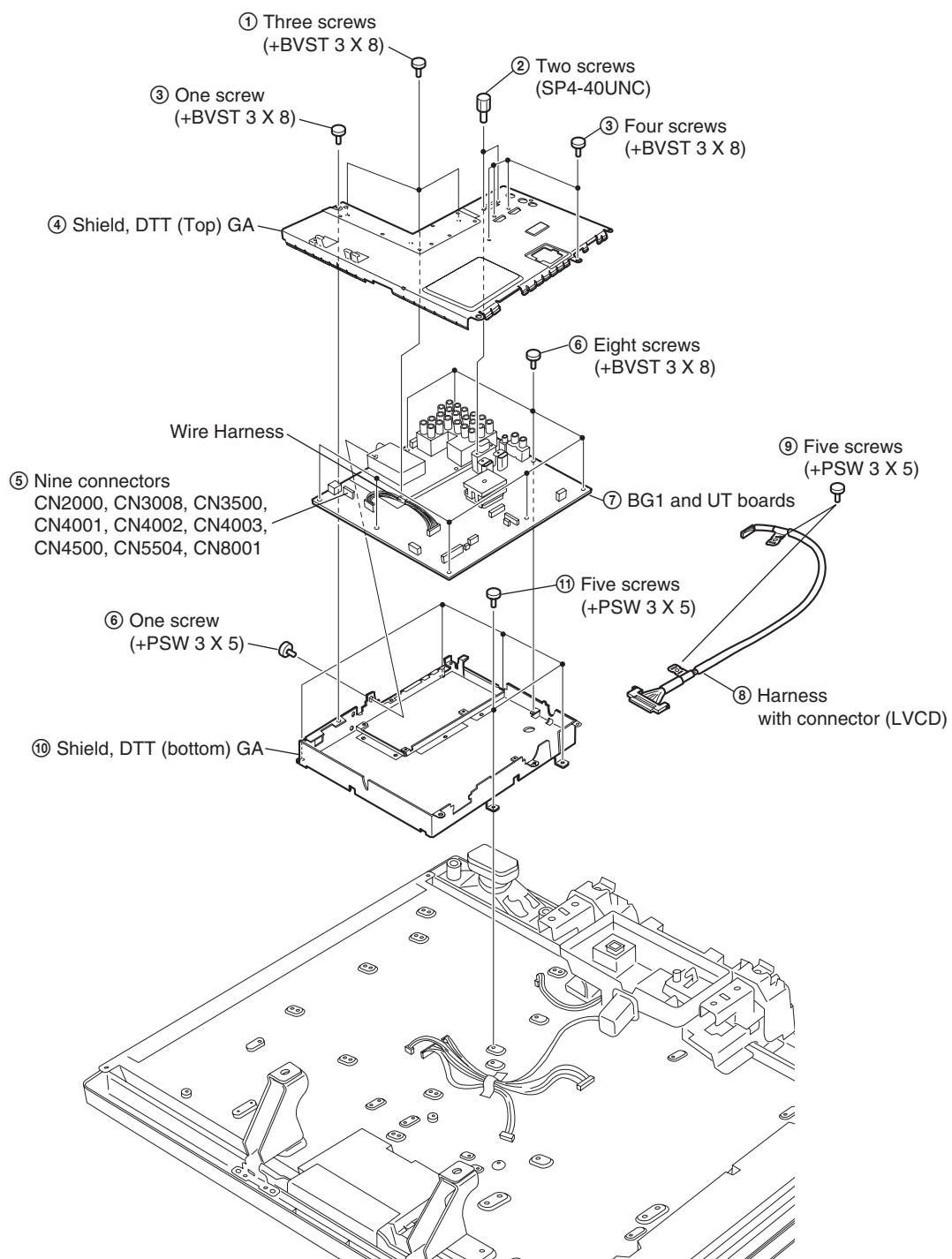
## 1-5. G1H BOARD REMOVAL (KLV-26/32V300A)



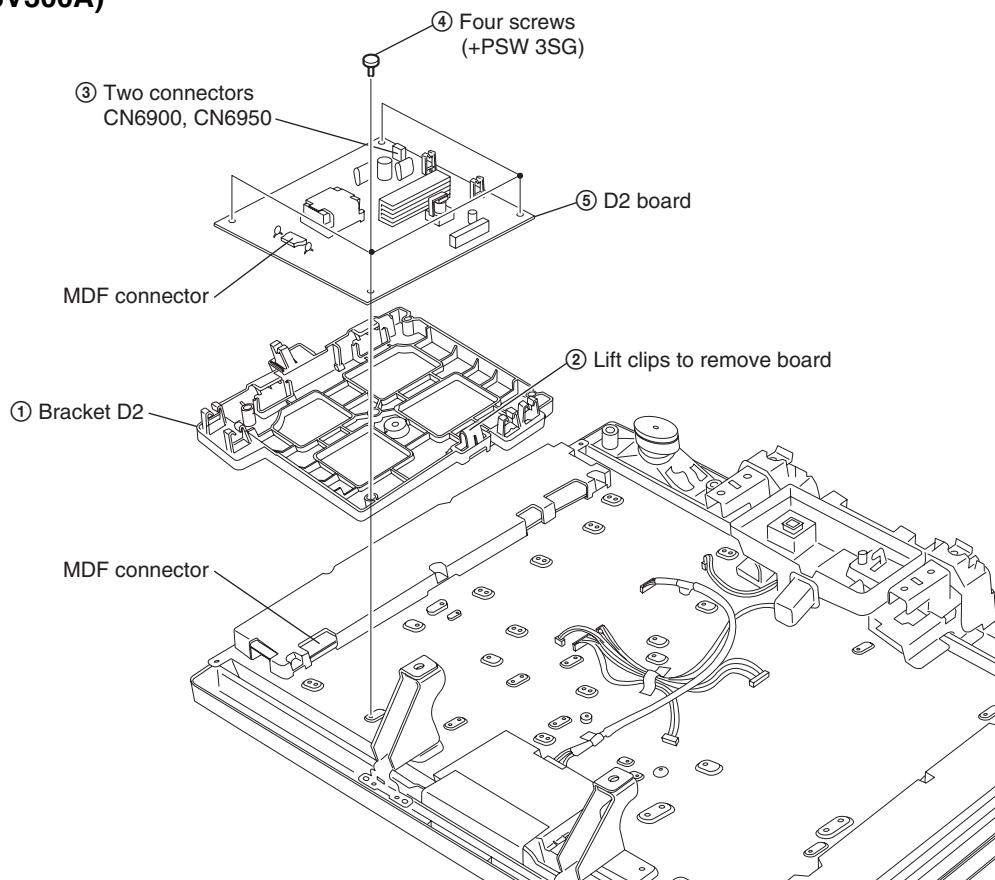
## 1-6. G3 AND D1 BOARDS REMOVAL (KLV-40/46V300A)



## 1-7. DTT SHIELD, UT AND BG1 BOARDS REMOVAL

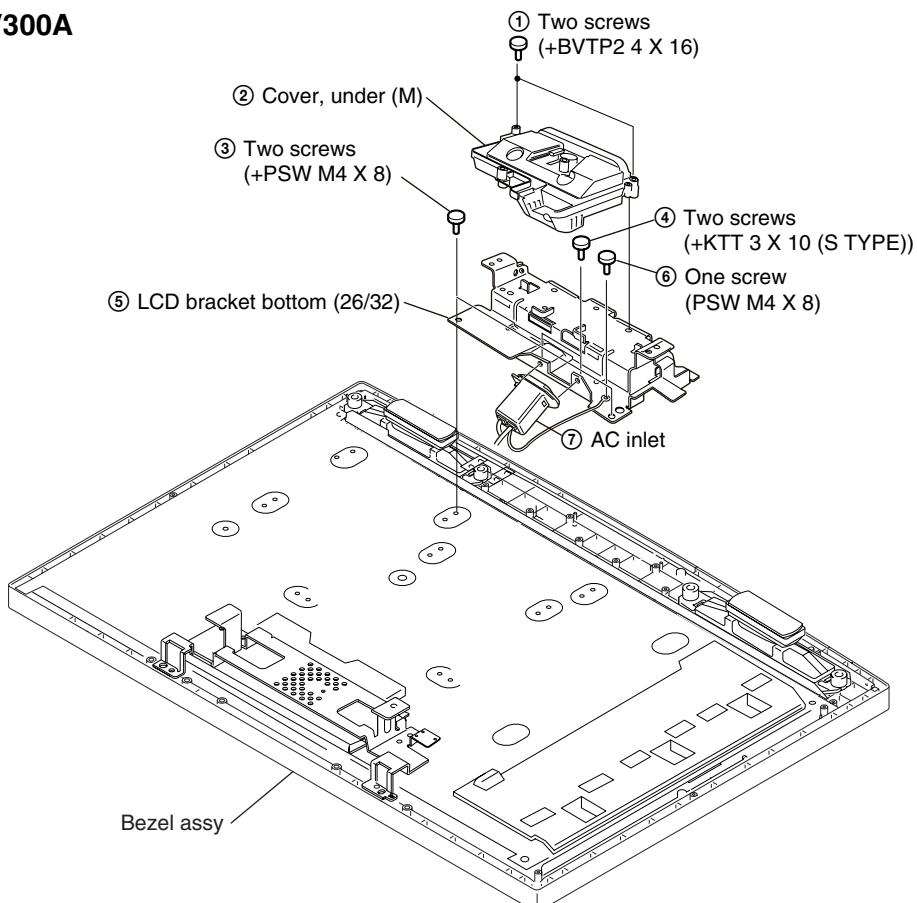


## 1-8. D2 BOARD REMOVAL (KLV-46V300A)

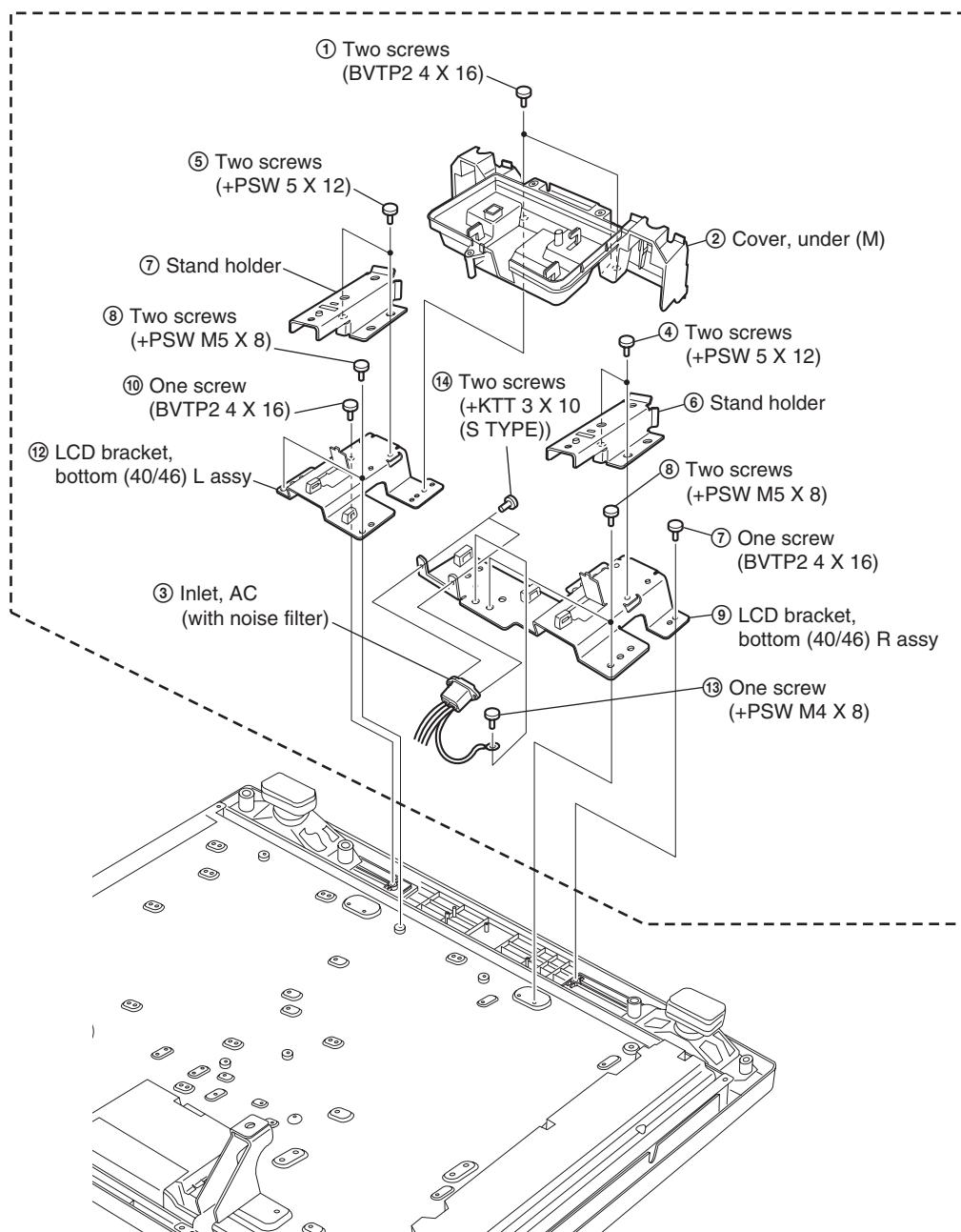


## 1-9. INLET, AC (WITH NOISE FILTER) REMOVAL

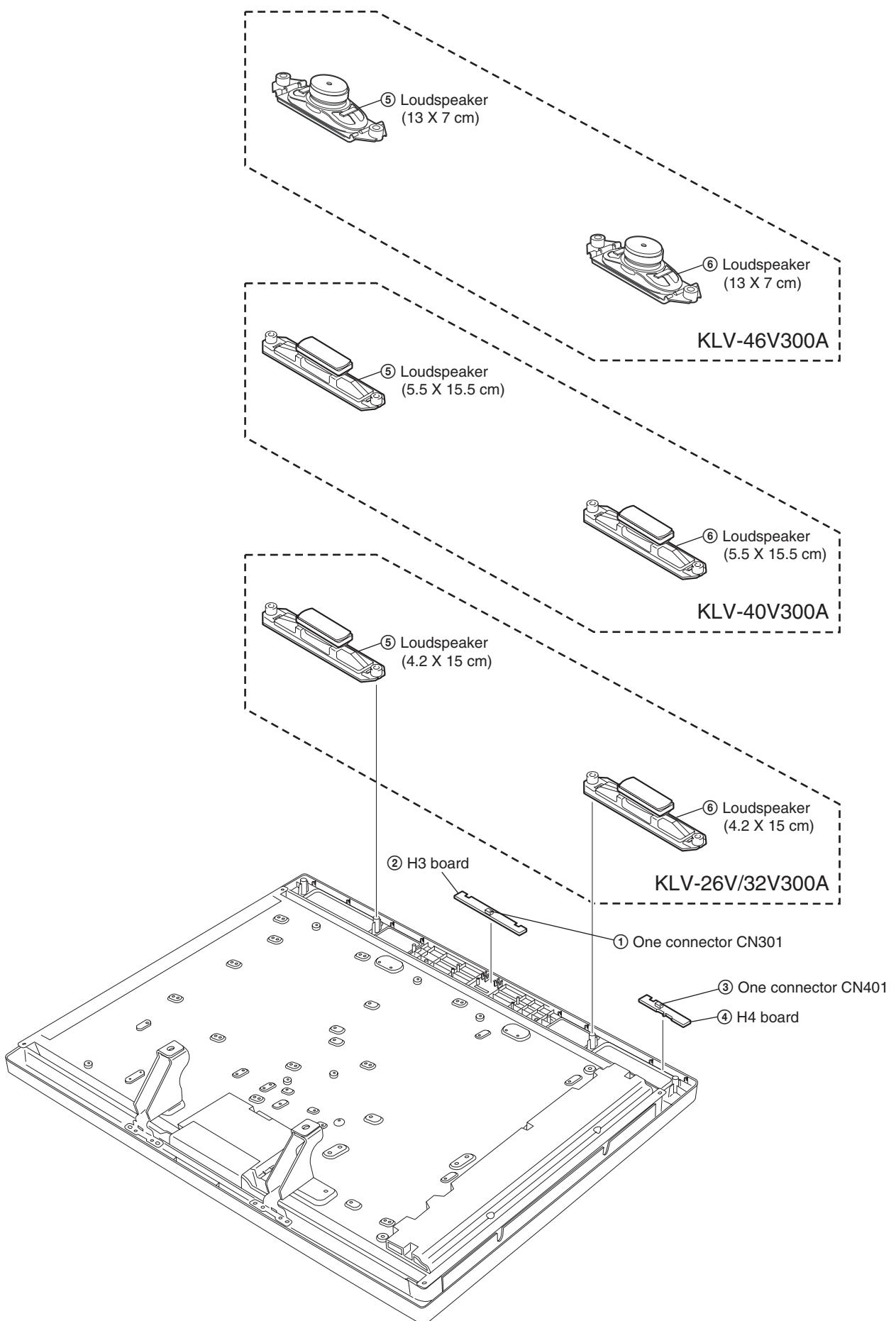
### (a) KLV-26/32V300A



(b) KLV-40/46V300A

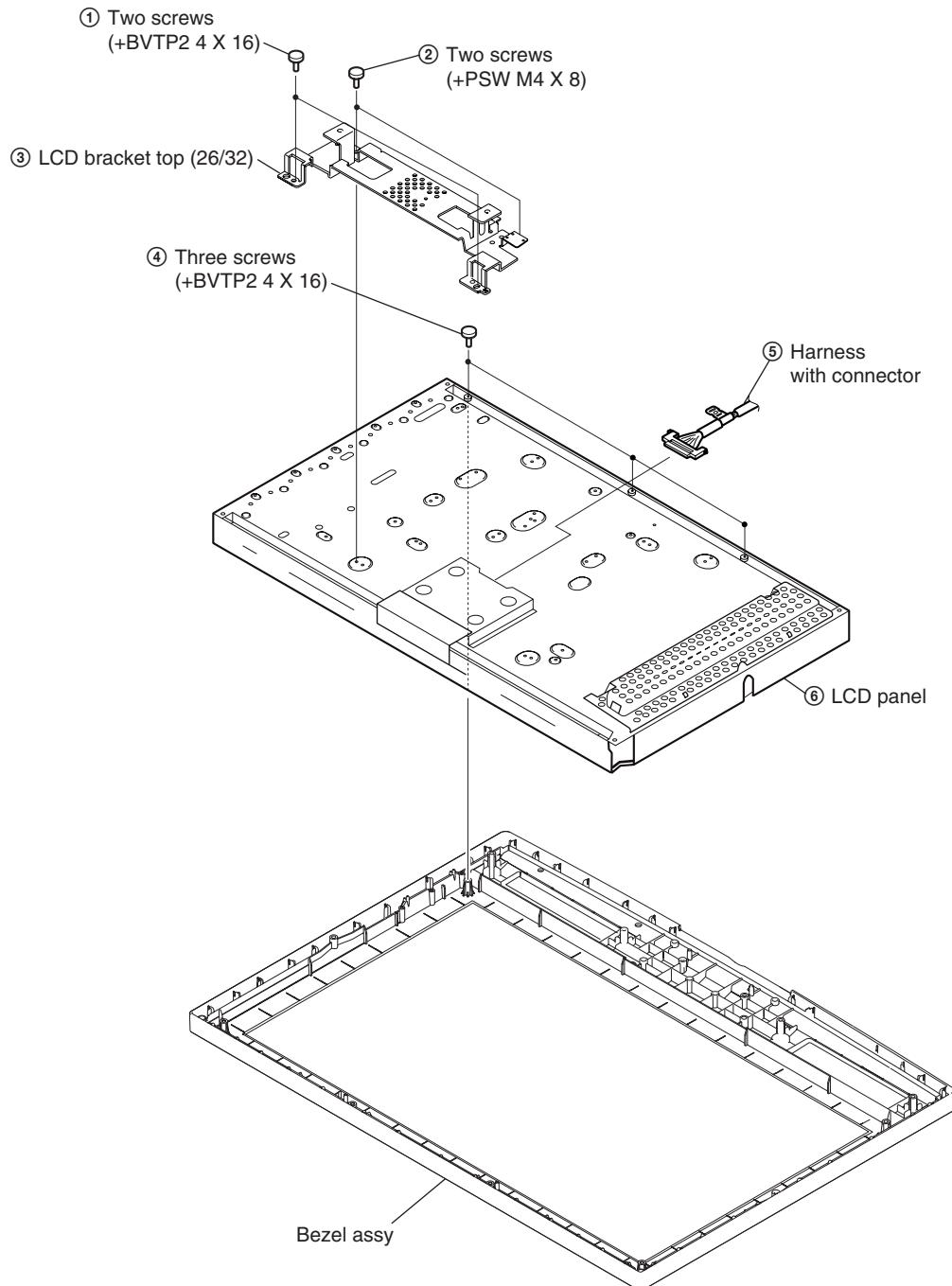


## 1-10. SPEAKER, H3 and H4 BOARDS REMOVAL

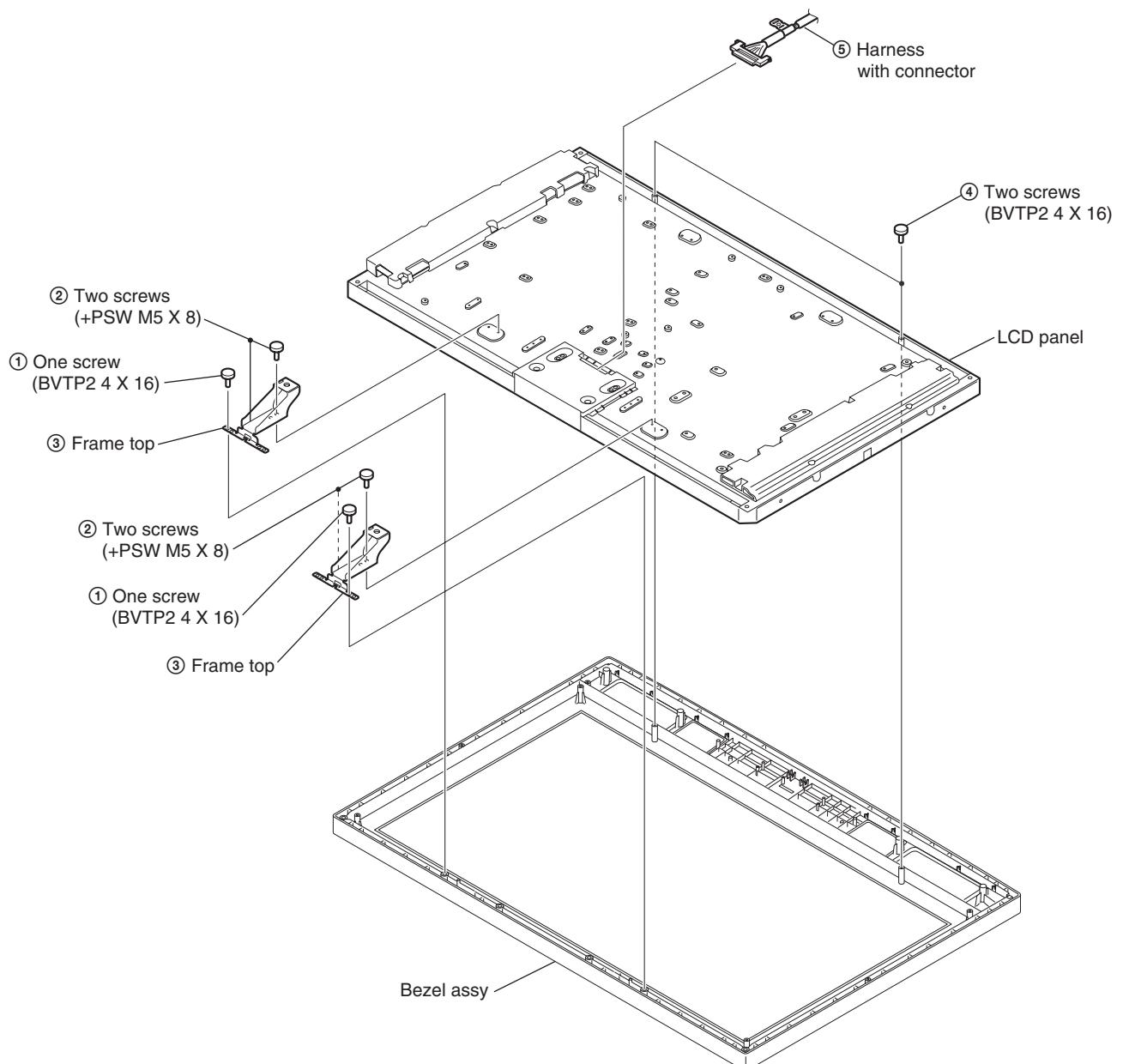


## 1-11. LCD PANEL REMOVAL

### (a) KLV-26/32V300A



(b) KLV-40/46V300A



## SECTION 2 WIRE DRESSING

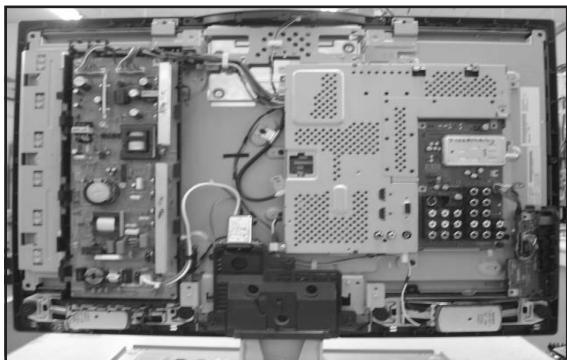
**CAUTION:**

1. Do not overpull the wire during dressing  
\_> avoid disconnection of wires.
2. Make sure wires are kept away from sharp edges, heatsinks & other high-temperature parts.

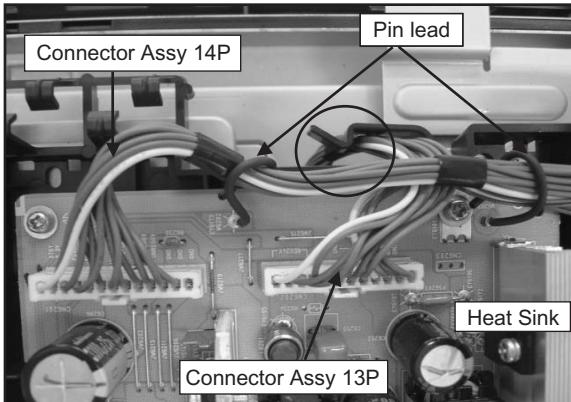


### 2-1. (KLV-26V300A)

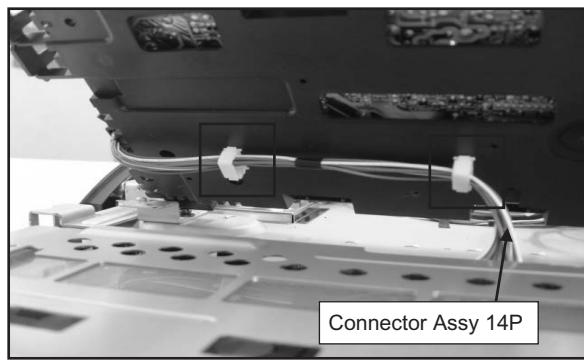
#### 2-1-1. Wire dressing overview



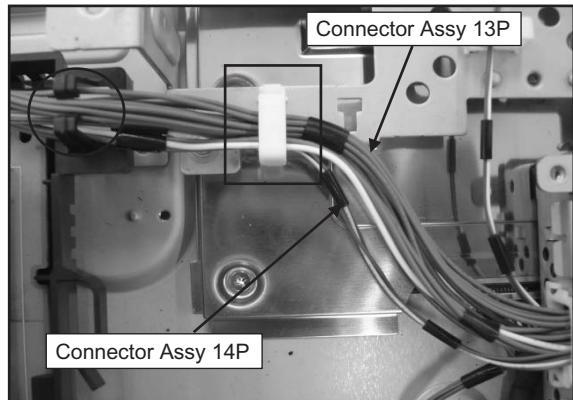
- i) Dress Conn Assy 14P with G1 bracket's hook
- ii) Dress Conn Assy 14P & 13P with pin lead (2X)
- iii) Make sure Conn Assy are keep away from heatsink



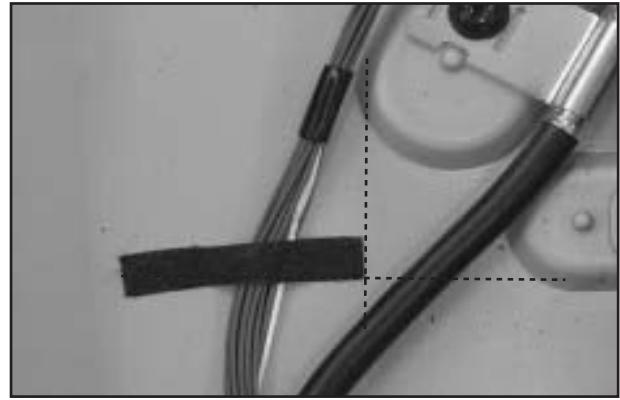
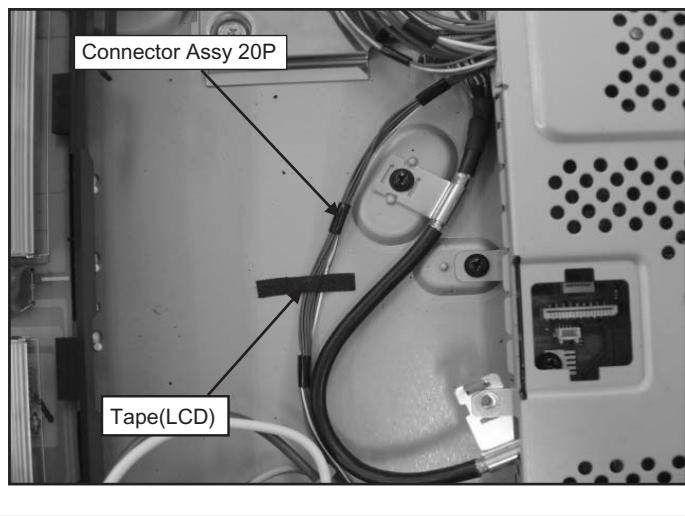
#### 2-1-2. Dress Conn Assy 14P with Slide Clamp (2X)



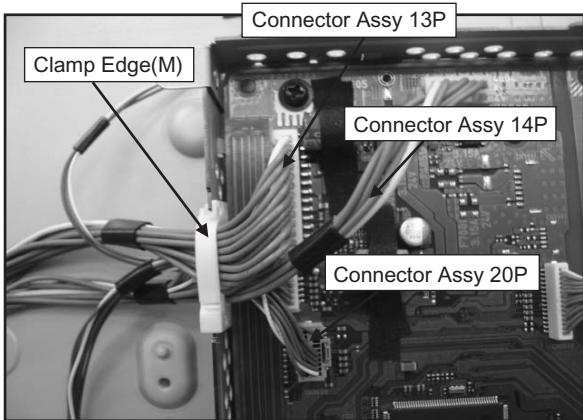
#### 2-1-3. i) Dress Conn Assy 14P with G1 bracket's hook ii) Dress Conn Assy 14P & 13P with pin lead (2X) iii) Make sure Conn Assy are keep away from heatsink



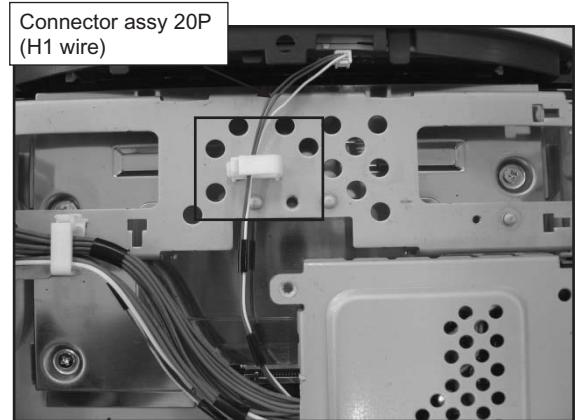
#### 2-1-4. Dress Conn Assy 14P & 13P with G1 bracket's



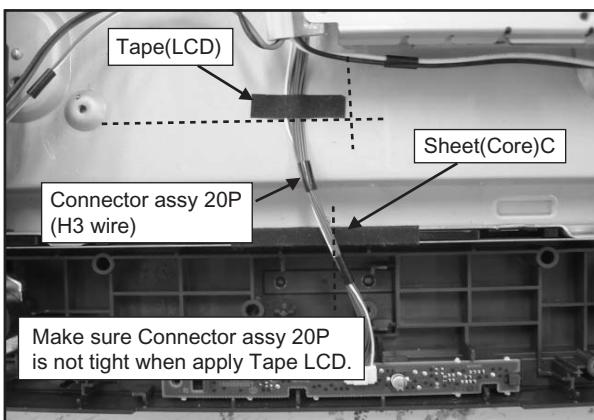
**2-1-6. Dress Conn Assy 13P, 14P & 20P with Clamp Edge (M)**



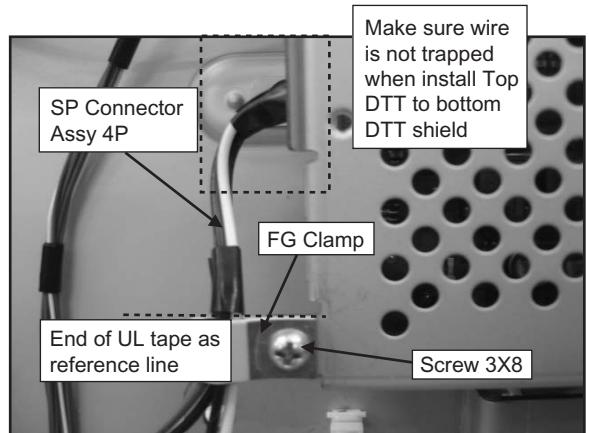
**2-1-7. Dress Conn Assy 20P (H1 wire) with Slide Clamp**



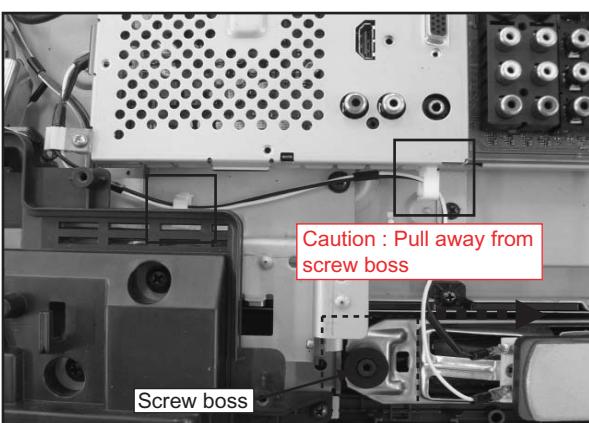
**2-1-8. i) Apply sheet (Core) C on LCD panel  
ii) Dress Conn Assy 20P with Tape (LCD)**



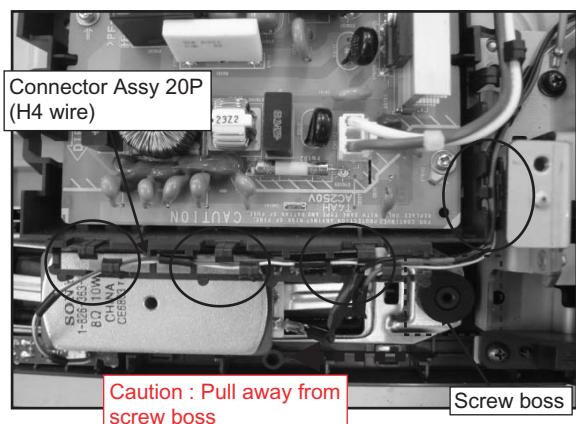
**2-1-9. Dress SP Conn Assy 4P with FG Clamp to Top DTT shield**



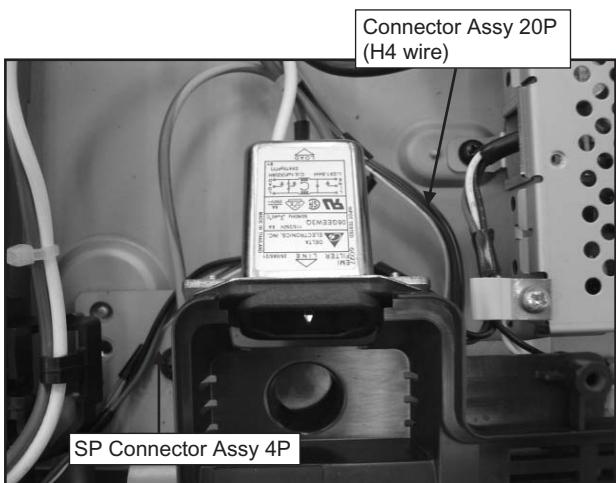
**2-1-10. Dress SP Conn Assy 4P with Slide Clamp (2X)**



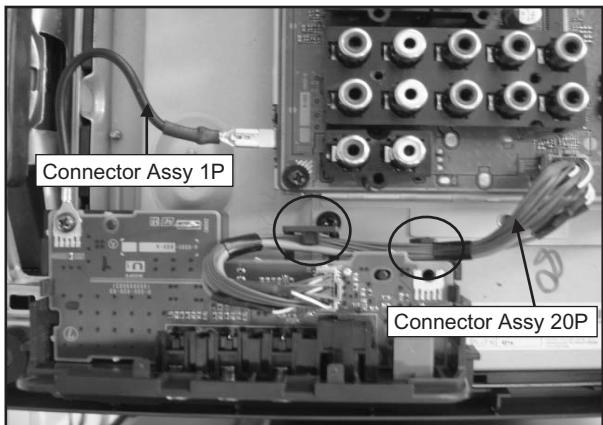
**2-1-11. i) Dress SP Conn Assy 4P with G1 bracket's hook (2X)  
ii) Dress Conn Assy 20P with G1 bracket's hook (4X)**



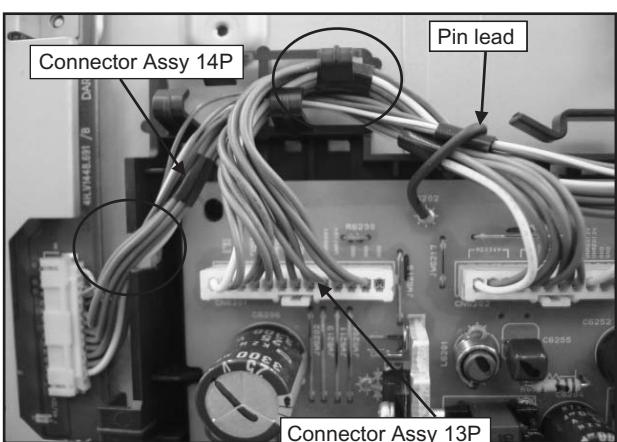
**2-1-12. Dress Conn Assy 20P and Conn Assy 4P underneath AC filter inlet**



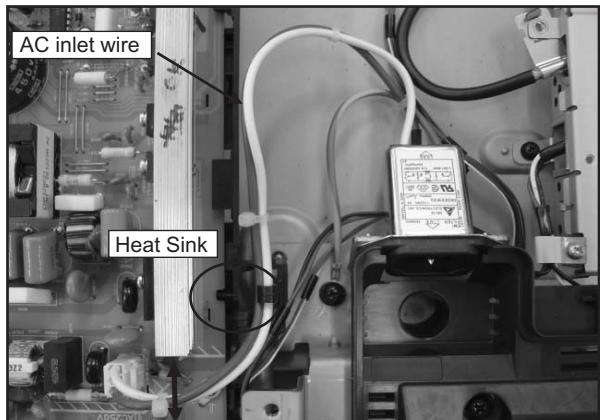
**2-1-14. i) Dress Conn Assy 20P with Side Jade bracket's hook (2X)  
ii) Screw Conn Assy 1P to the direction**



**2-2-2. i) Dress Conn Assy 14P with G1 bracket's slit  
ii) Dress Conn Assy 14P&13P with G1 bracket's hook (3X) & pin lead (2X)  
iii) Make sure Conn Assy 14P & 13P are keep away from heat sink**

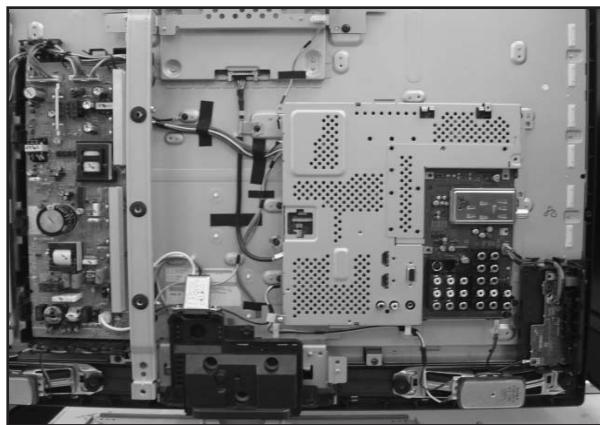


**2-1-13. i) Dress AC inlet wire with G1 bracket's hook  
ii) Make sure AC inlet wire is keep away from heatsink**

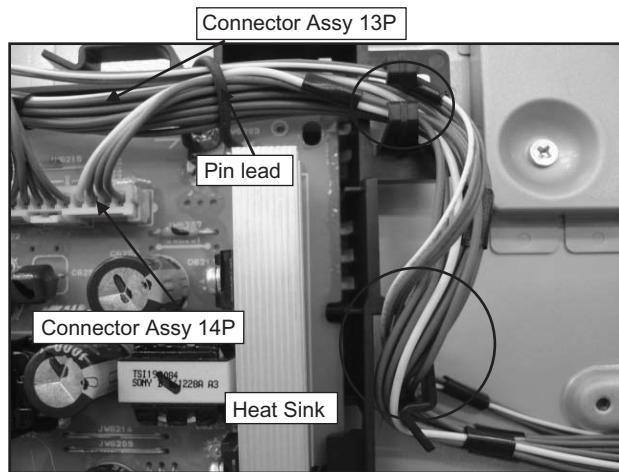


**2-2. (KLV-32V300A)**

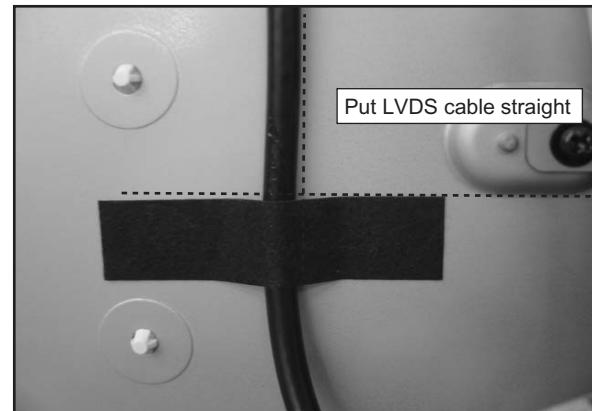
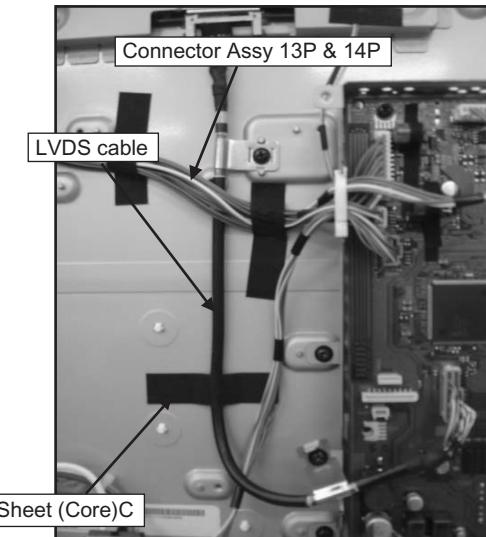
**2-2-1. Wire Dressing overview**



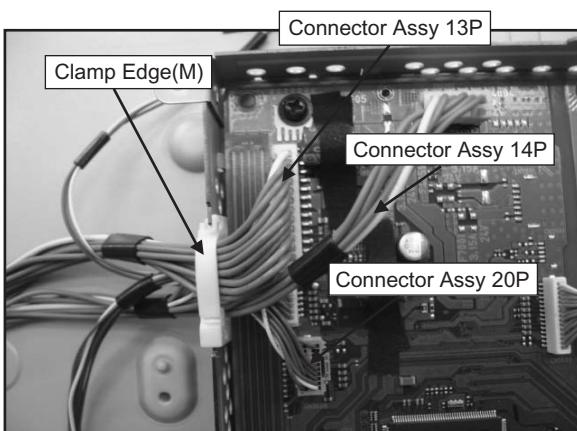
**2-2-2. i) Dress Conn Assy 14P with G1 bracket's slit  
ii) Dress Conn Assy 14P&13P with G1 bracket's hook (3X) & pin lead (2X)  
iii) Make sure Conn Assy 14P & 13P are keep away from heat sink**



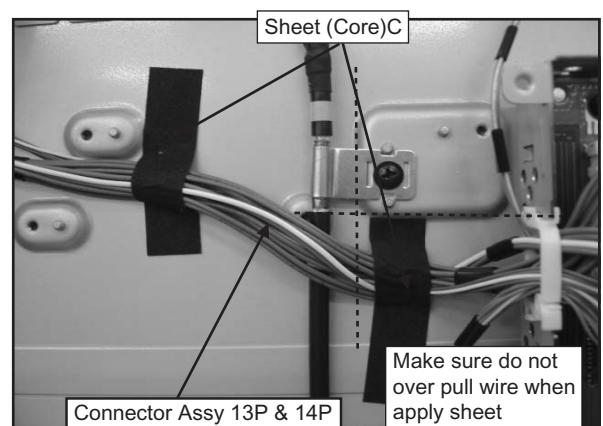
**2-2-3. Dress LVDS cable with Sheet(Core)C and put under Connector assy 13P & 14P.**



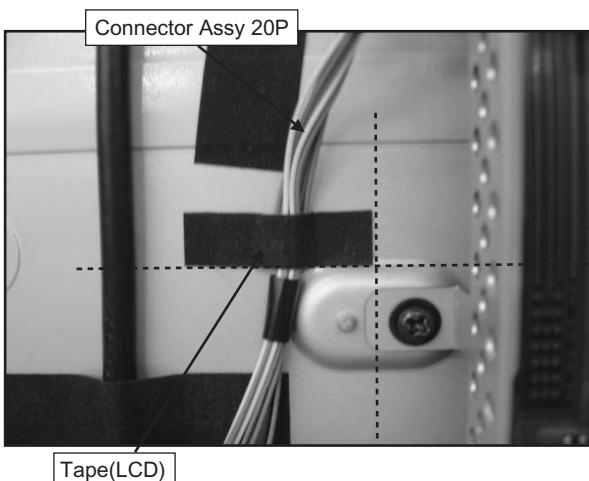
**2-2-4. Dress Connector Assy 13P, 14P & 20P with Clamp Edge(M)**



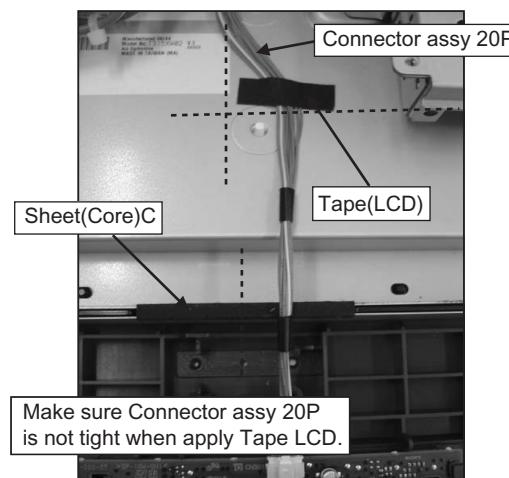
- 2-2-5. i) Dress Connector Assy 11P & 12P at G3 bracket's hook.  
ii) Dress Connector Assy 11P & 12P with Sheet(Core)C.**



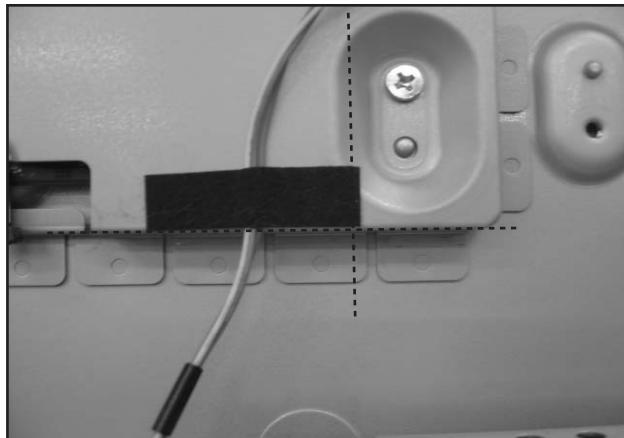
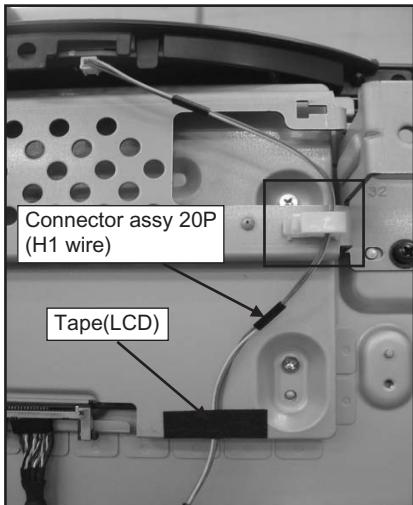
**2-2-6. Dress Connector Assy 20P with Tape(LCD)**



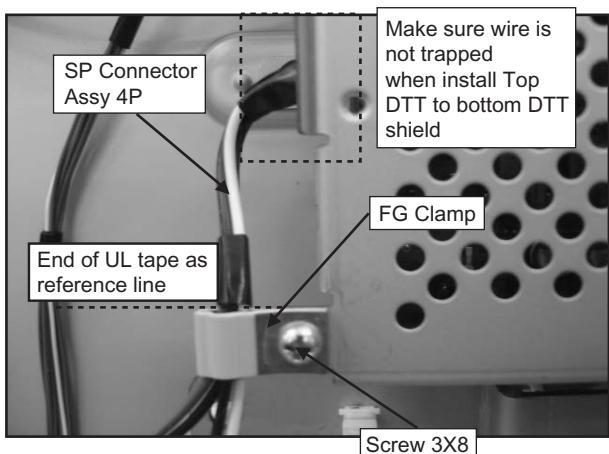
- 2-2-7. i) Apply Sheet(Core)C on LCD panel  
ii) Dress Connector Assy 20P with Tape(LCD)**



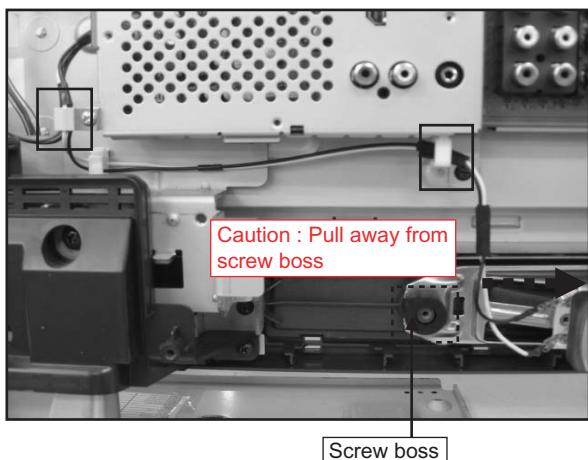
**2-2-8. Dress Connector Assy 20P(H1 wire) with Tape(LCD) & Slide Clamp.**



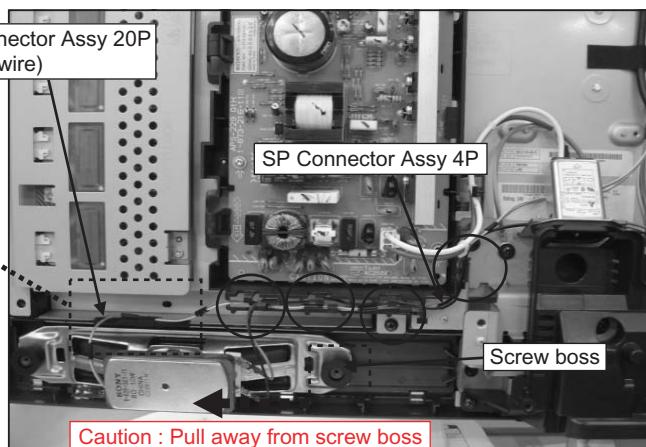
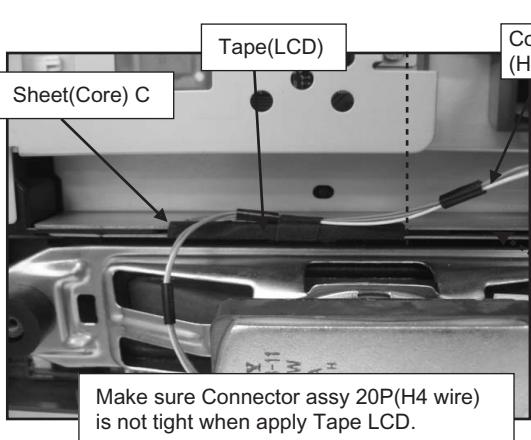
**2-2-9. Dress SP Connector Assy 4P with FG Clamp to Top DTT shield**



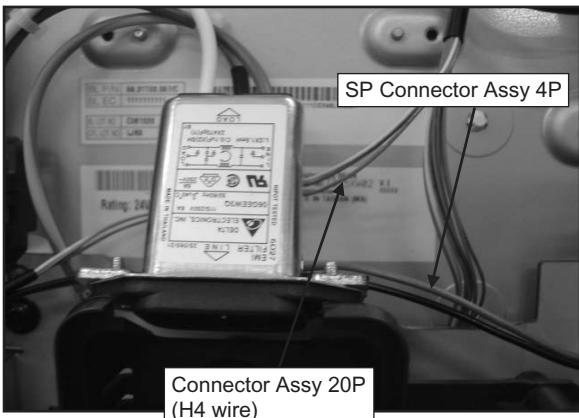
**2-2-10. Dress SP Connector assy 4P with slide clamp (2X)**



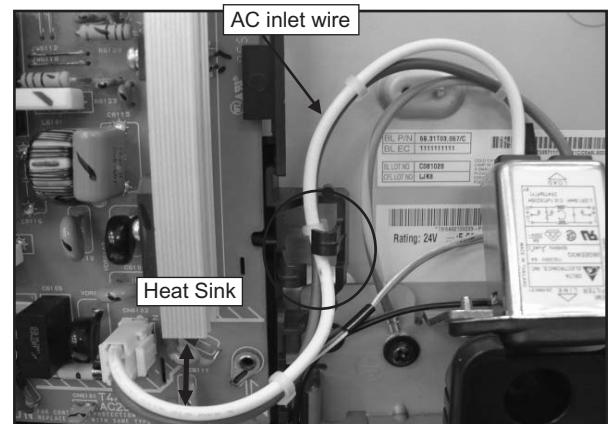
**2-2-11. i) Dress Connector Assy 20P (H4 wire) & SP Connector Assy 4P with G1 bracket's hook (4X)  
ii) Apply Sheet(Core)C on LCD panel  
iii) Dress Connector Assy 20P (H4 wire) with Tape(LCD)**



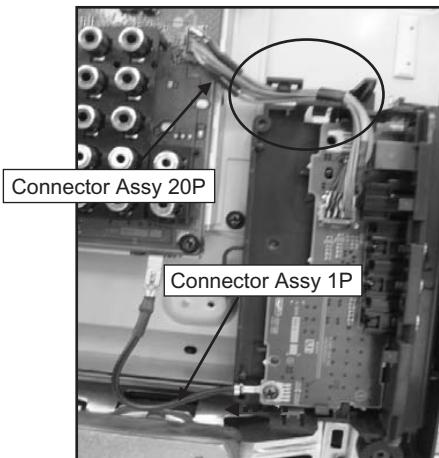
**2-2-12. Dress Connector assy 20P and SP Connector Assy 4P underneath AC filter inlet**



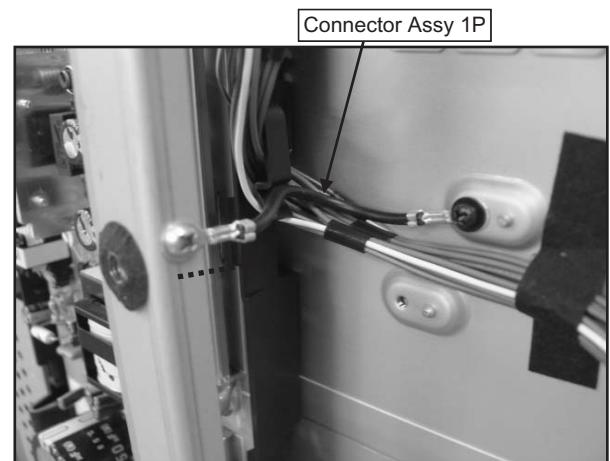
**2-2-13. i) Dress AC inlet wire with G1 bracket's hook  
ii) Make sure AC inlet wire is keep away from from heat sink**



**2-2-14. i) Dress Connector Assy 20P with Side Jack bracket's hook  
ii) Screw Connector Assy 1P to the direction**

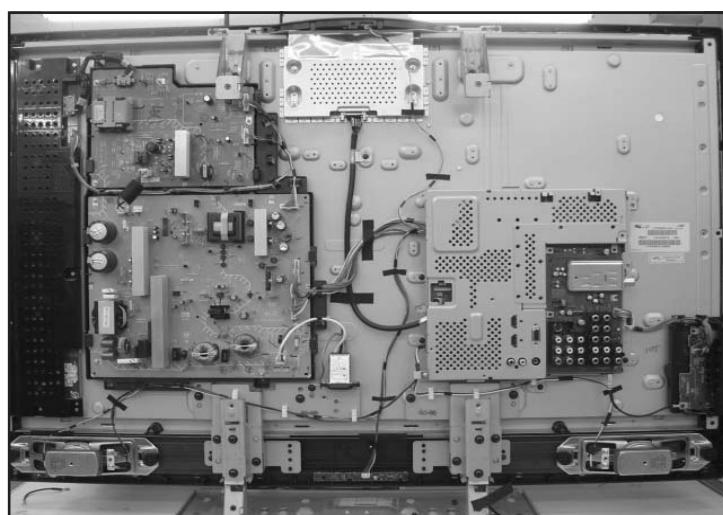


**2-2-15. Screw Connector Assy 1P to the direction**

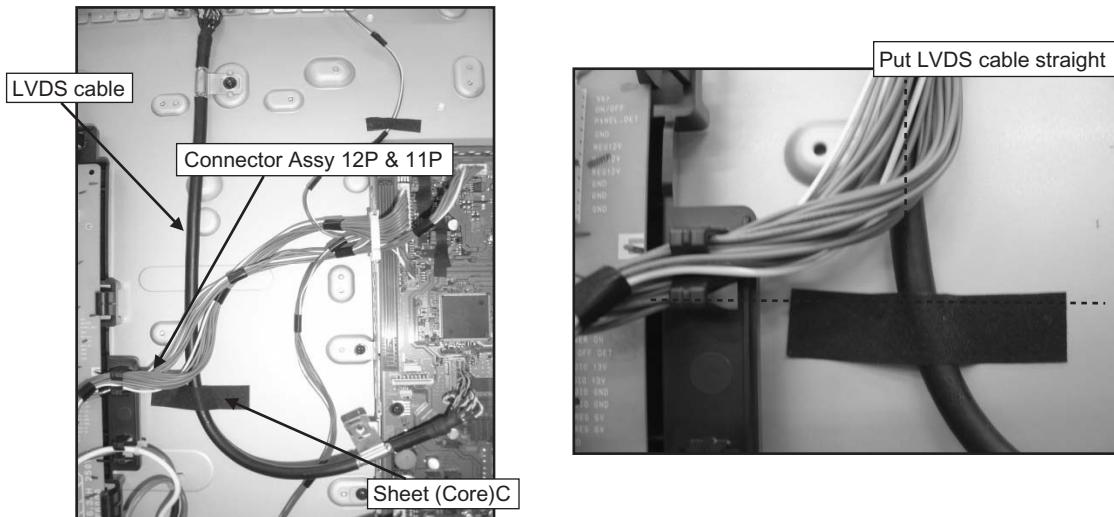


**2-3. (KLV-40V300A)**

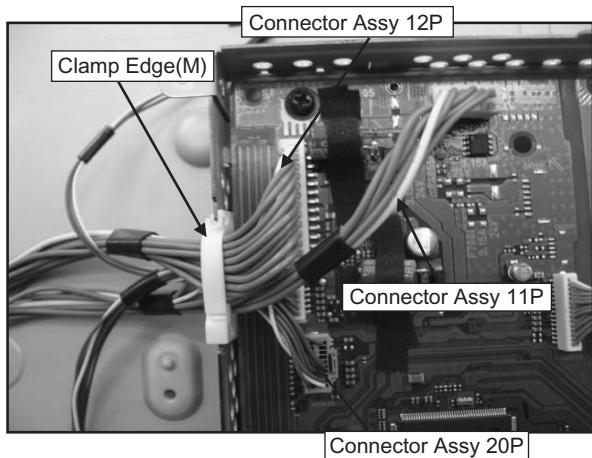
**2-3-1. Wire dressing overview.**



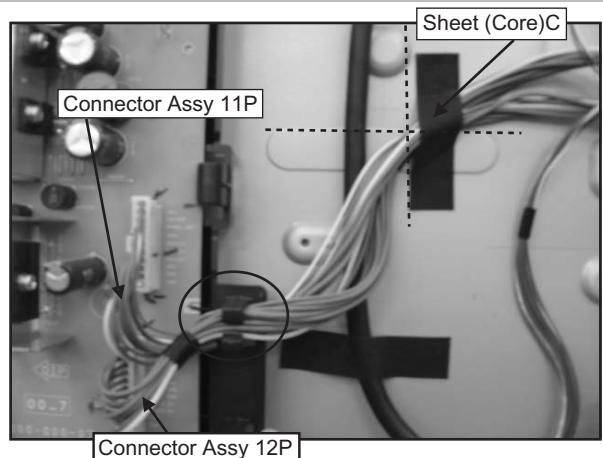
**2-3-2. Dress LVDS cable with Sheet(Core)C and put under Connector assy 12 & 11P**



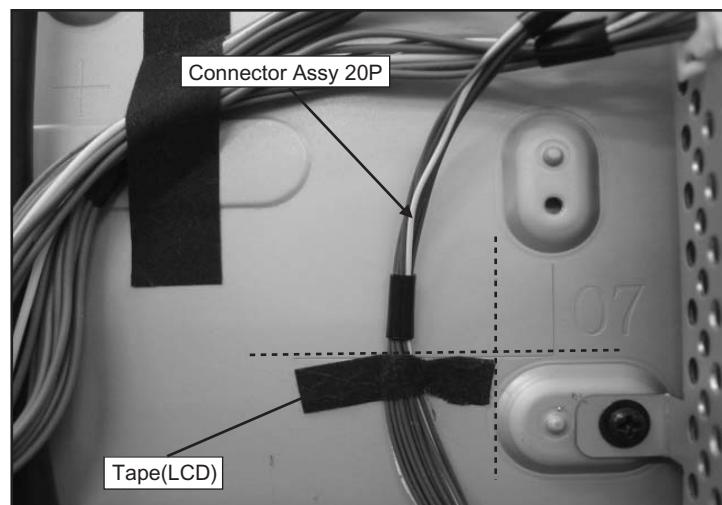
**2-3-3. Dress Connector Assy 11P, 12P & 20P with Clamp Edge(M)**



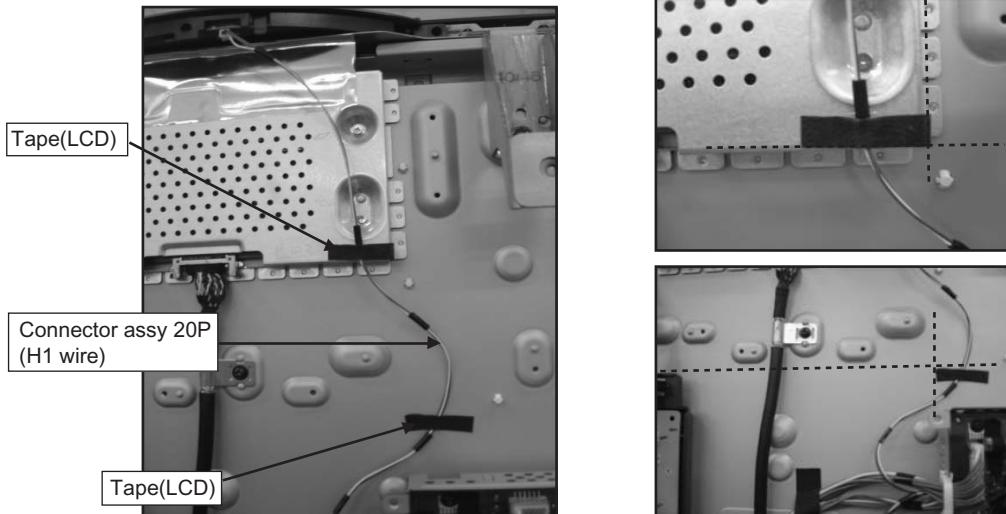
- 2-3-4. i) Dress Connector Assy 11P & 12P at G3 bracket's hook  
ii) Dress Connector Assy 11P & 12P with Sheet(Core)C**



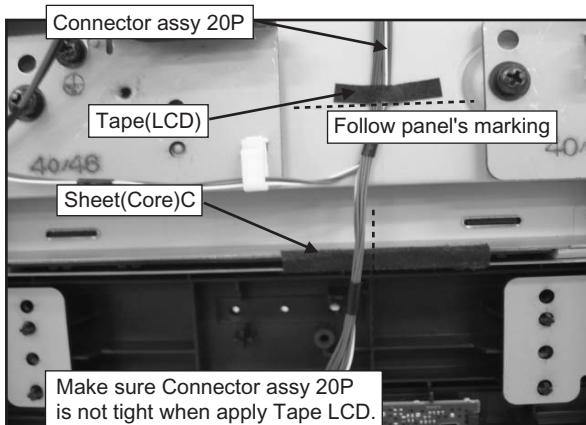
**2-3-5. Dress Connector Assy 20P with Tape(LCD)**



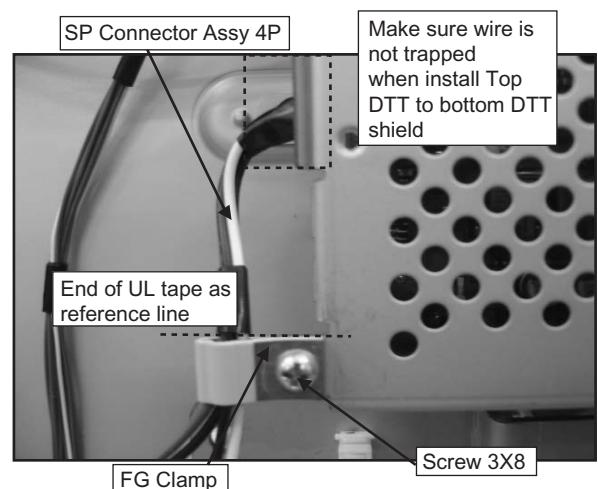
**2-3-6. Dress Connector Assy 20P(H1 wire) with Tape(LCD)(2X)**



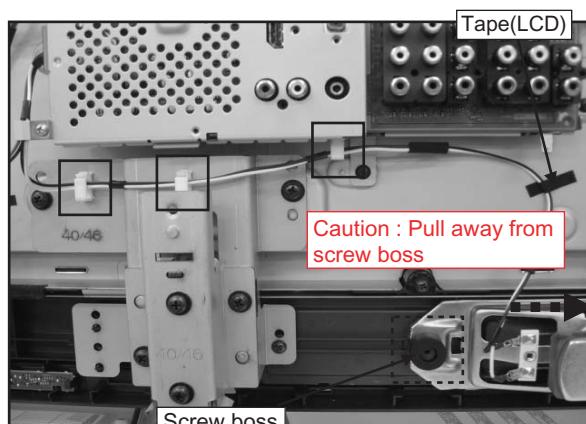
**2-3-7. i) Apply Sheet(Core)C on LCD panel  
ii) Dress Connector Assy 20P with Tape(LCD)**



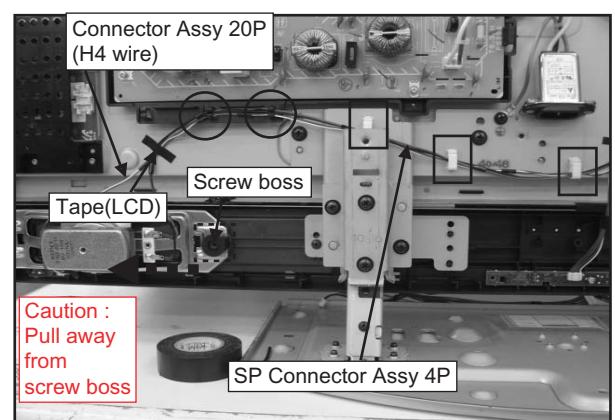
**2-3-8. Dress SP Connector Assy 4P with FG Clamp to Top DTT shield**



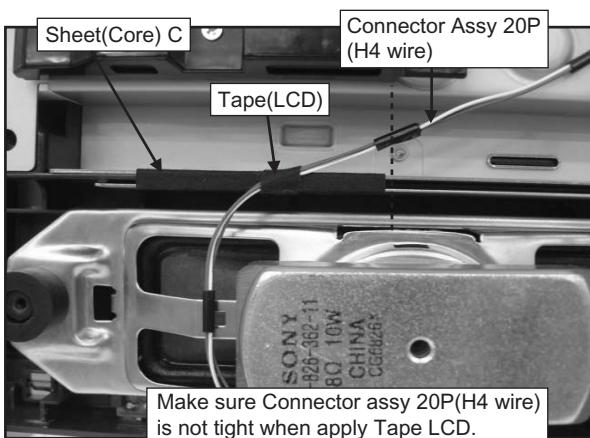
**2-3-9. Dress SP Connector assy 4P with slide clamp(3X) and Tape(LCD)**



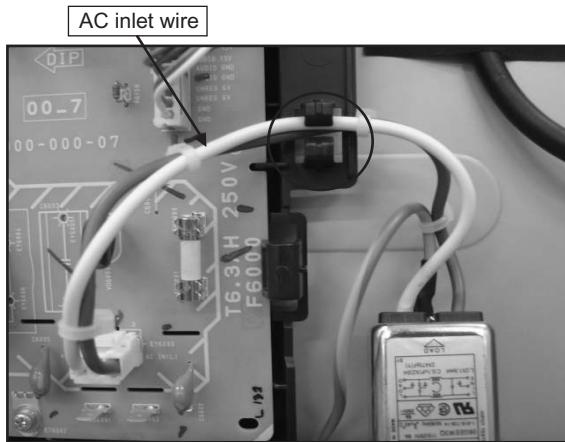
**2-3-10. Dress Connector Assy 20P (H4 wire) & SP Connector Assy 4P with G3 bracket's hook(2X), Slide Clamp(3X) & Tape(LCD)**



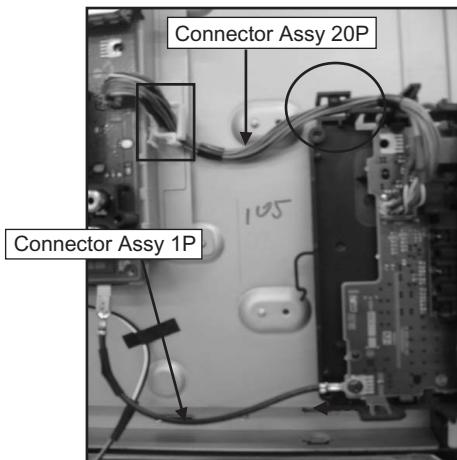
**2-3-11. i) Apply Sheet(Core)C on LCD panel  
ii) Dress Connector Assy 20P  
(H4 wire) with Tape(LCD)**



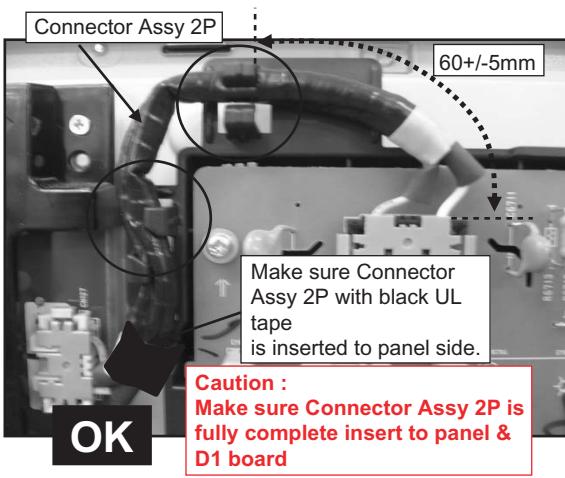
**2-3-12. Dress AC inlet wire with G3 bracket's hook**



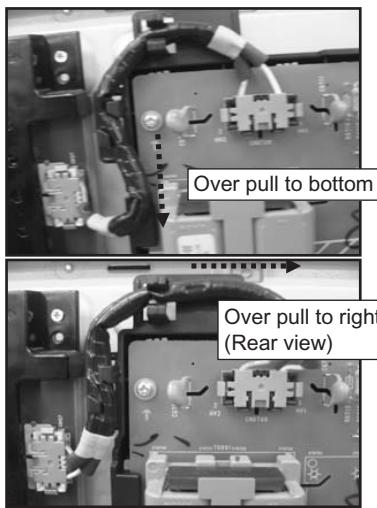
**2-3-13. i) Dress Connector Assy 20P with Slide Clamp & Side Jack bracket's hook  
ii) Screw Connector Assy 1P to the direction**



**2-3-14. Dress Connector Assy 2P with G3 bracket's hook(2X)**



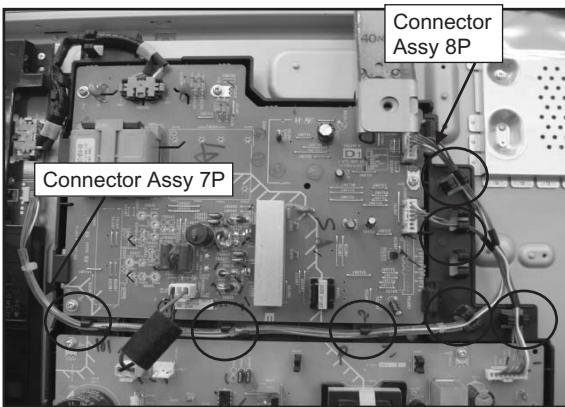
**2-3-15. Connector Assy 2P NG example**



**NG**

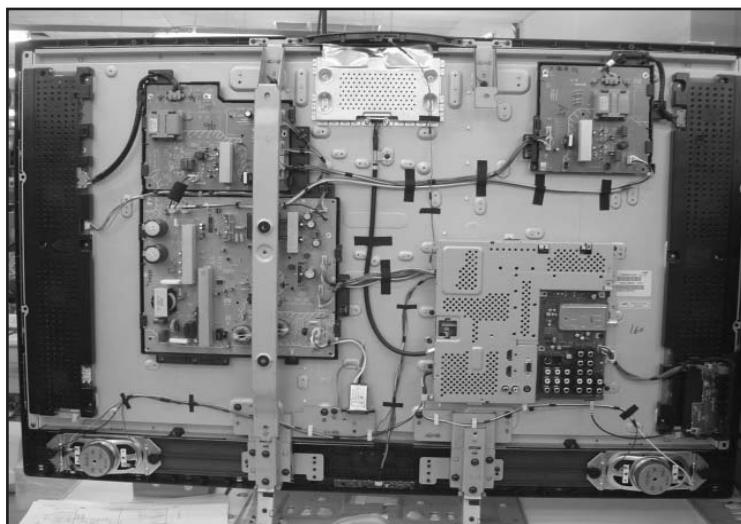
**NG**

**2-2-16 i) Dress Connector Assy 7P with G3 bracket's hook(5X)  
ii) Dress Connector Assy 8P with G3 bracket's hook(2X)**

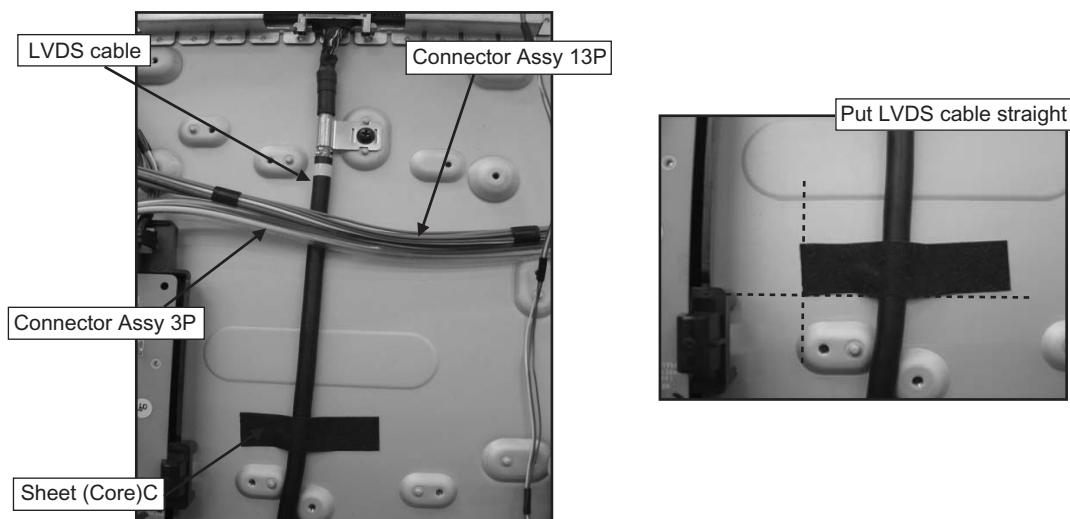


## 2-4. (KLV-46V300A)

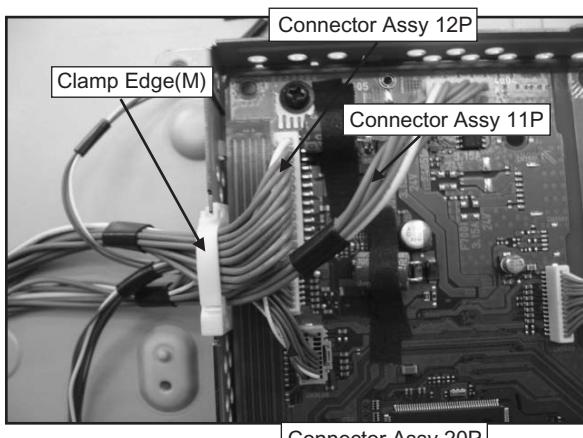
### 2-4-1. Wire dressing overview



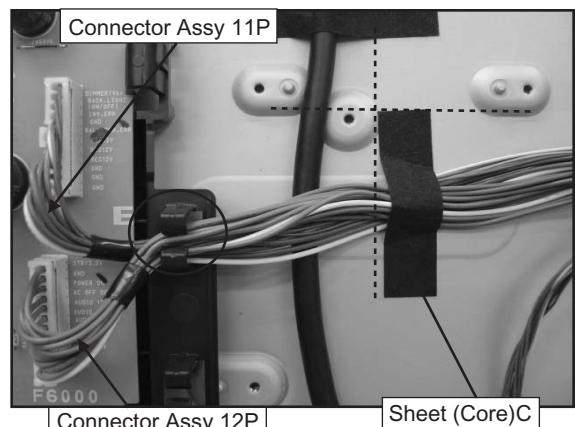
### 2-4-2. Dress LVDS cable with Sheet(Core)C and put under Connector assy 13P & 3P



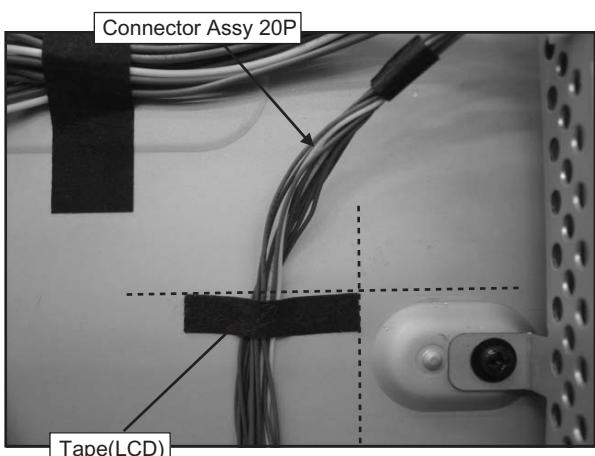
### 2-4-3. Dress Connector Assy 11P, 12P & 20P with Clamp Edge(M)



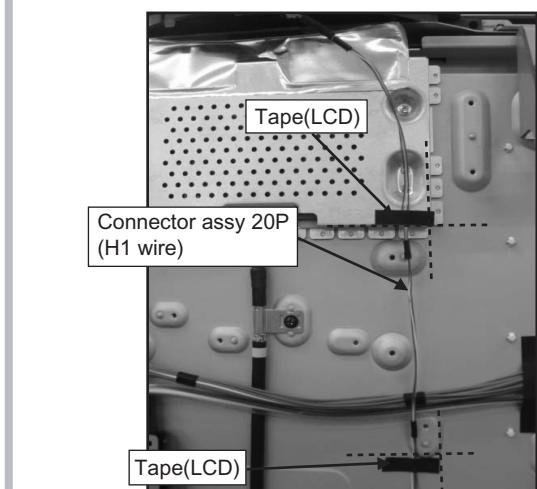
- Dress Connector Assy 11P & 12P at G3 bracket's hook
- Dress Connector Assy 11P & 12P with Sheet(Core)C



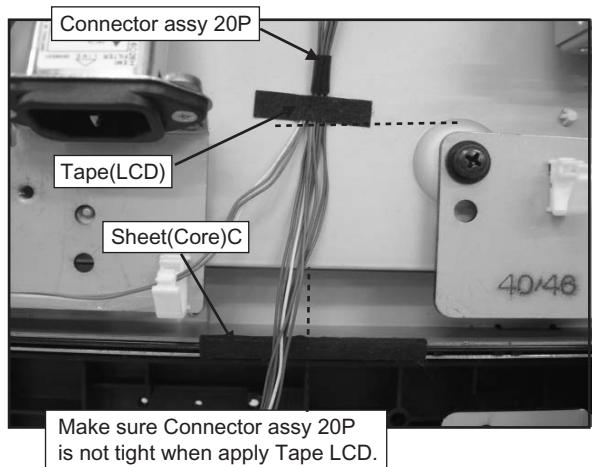
**2-4-5. Dress Connector Assy 20P with Tape(LCD)**



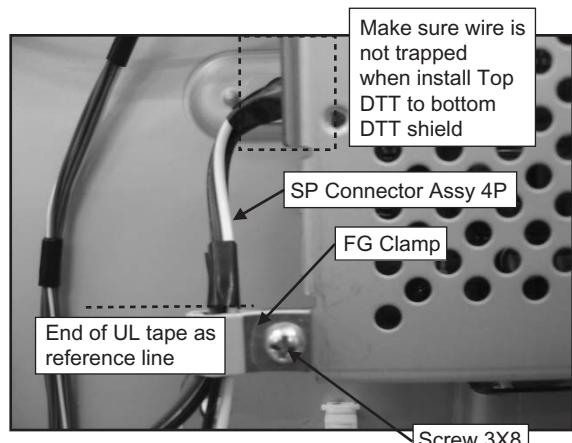
**2-4-6. Dress Connector Assy 20P(H1 wire) with Tape(LCD)(2X)**



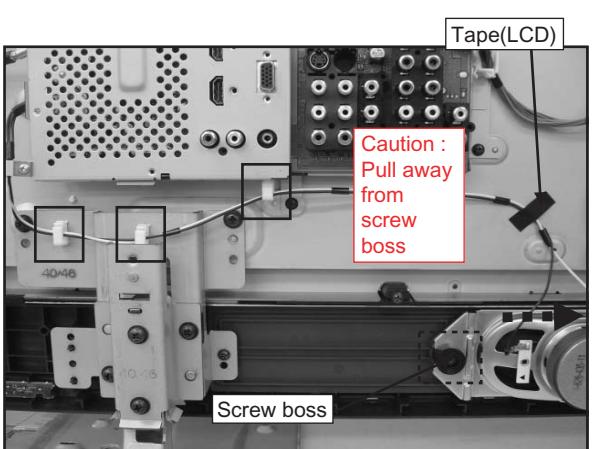
**2-4-7. i) Apply Sheet(Core)C on LCD panel  
ii) Dress Connector Assy 20P with Tape(LCD)**



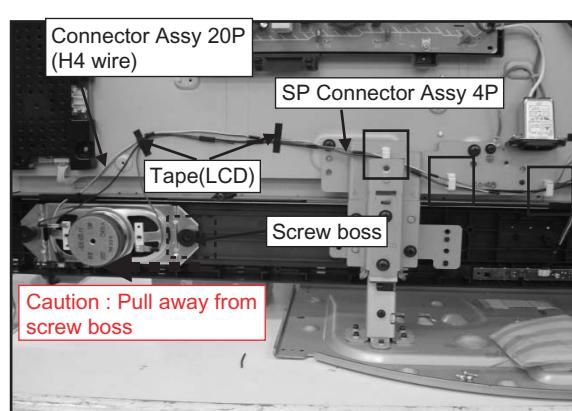
**2-4-8. Dress SP Connector Assy 4P with FG Clamp to Top DTT shield**



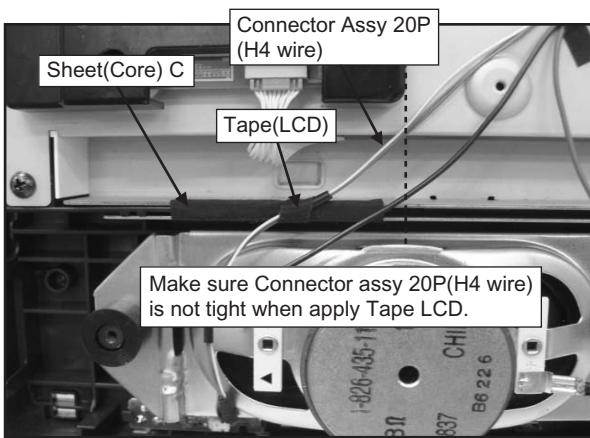
**2-4-9. Dress SP Connector assy 4P with slide clamp(3X) and Tape(LCD)**



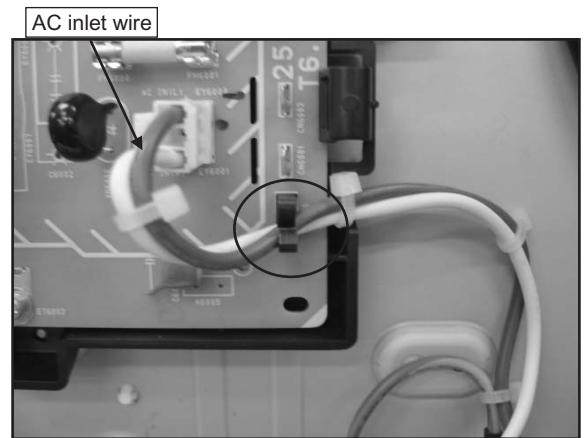
**2-4-10. Dress Connector Assy 20P (H4 wire) & SP Connector Assy 4P with Slide Clamp(3X) & Tape(LCD)(2X)**



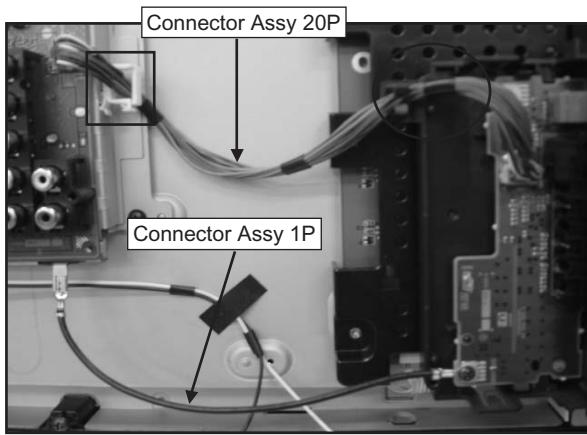
**2-4-11. i) Apply Sheet(Core)C on LCD panel  
ii) Dress Connector Assy 20P (H4 wire)  
with Tape(LCD)**



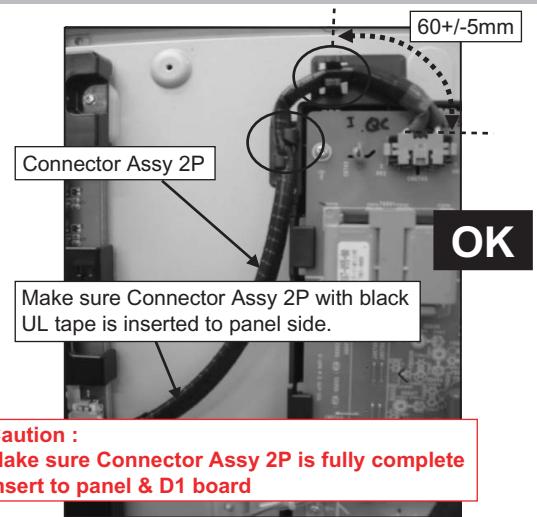
**2-4-12. Dress AC inlet wire with G3 board's hook**



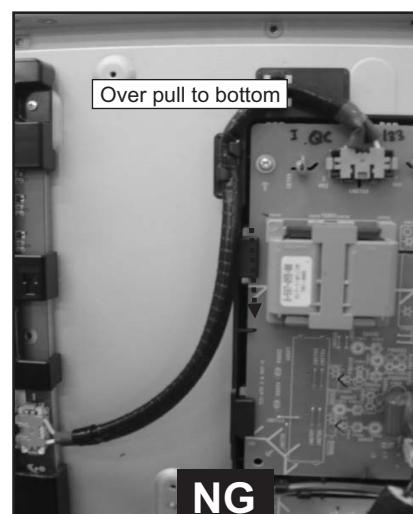
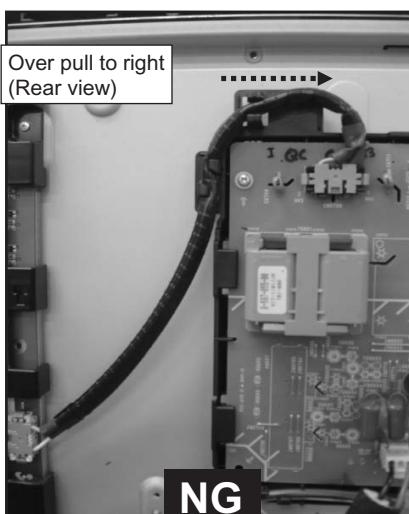
**2-4-13. i) Dress Connector Assy 20P with Slide Clamp & Side Jack bracket's hook  
ii) Screw Connector Assy 1P to the direction**



**2-4-14. Dress Connector Assy 2P with G3 bracket's hook(2X)**

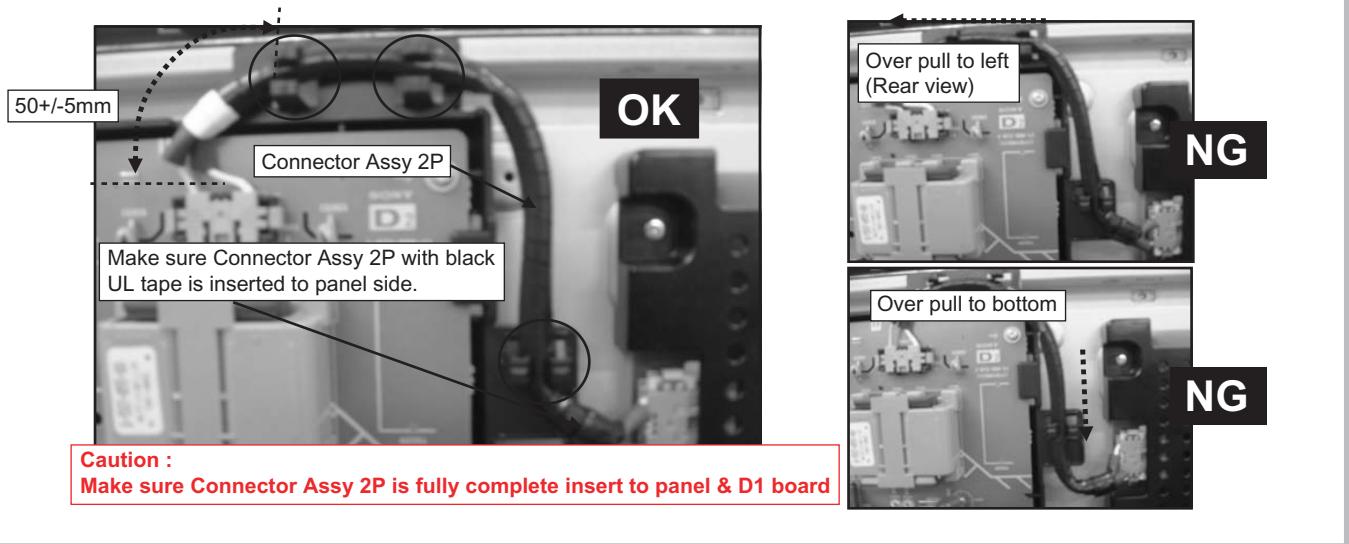


**2-4-15. Connector Assy 2P NG example**

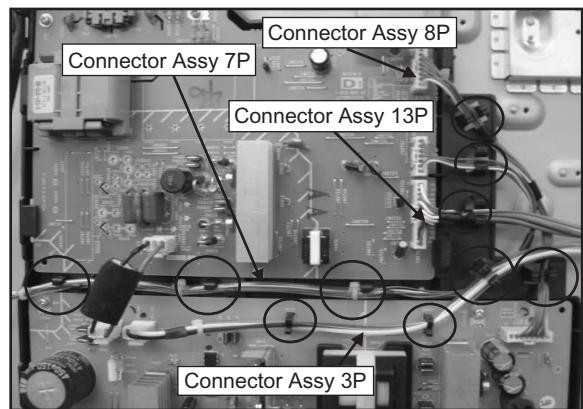


**2-4-16. Dress Connector Assy 2P with D2 bracket's hook(3X)**

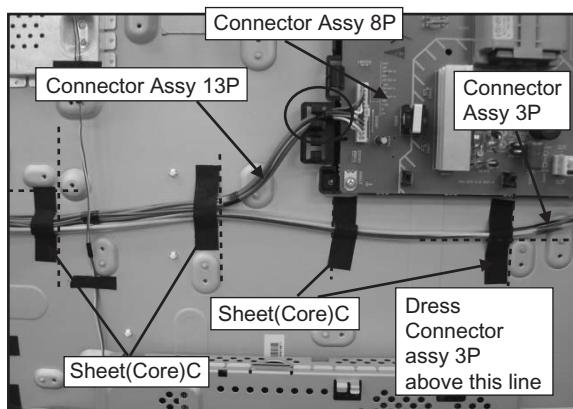
Connector Assy 2P NG example



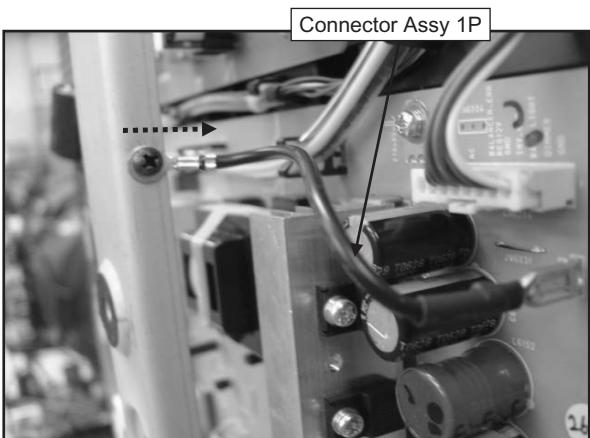
- 2-4-17.** i) Dress Connector Assy 7P with G3 bracket's hook(5X)  
ii) Dress Connector Assy 8P with G3 bracket's hook(2X)  
iii) Dress Connector assy 3P with G3 board's hook(2X) & G3 bracket's hook(1X)  
iv) Dress Connector Assy 13P with G3 bracket's hook(1X)



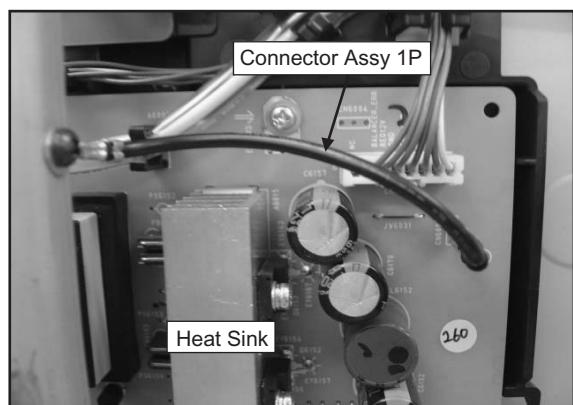
- 2-4-18.** i) Dress Connector Assy 13P with D2 bracket's hook(1X)  
ii) Dress Connector Assy 3P & 13P with Sheet(Core)C(4X)



**2-4-19. Screw Connector Assy 1P to the direction**



**2-4-20. Make sure Connector Assy 1P is keep away from heat sink**



**Please be careful of the following when perform servicing.**

1. Please protect caution items.

Parts that considered as caution or critical item when servicing are shown by critical label or seal on cabinet, chassis, parts etc.

Please make sure to protect these caution notes and Instruction Manual.

2. Beware with electric shock

Live chassis can caused electric shock because its connected to the ac power line. Therefore, please use isolation transformer and gloves when changing parts or remove plug. Please remember that there is high voltage during servicing.

3. Use specification parts.

Some parts has its characteristic such as fire retardancy and voltage value specification. Therefore, please use the same specification to replace parts. Parts identified by shading and critical mark on the schematic diagrams, exploded views, and in the part list are critical for safe operation. Replace these parts with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical parts are replaced or improper operation is suspected.

4. On a safety as before, attaching parts and leading wiring by using insulated material such as tube and tape, there are also parts that taken from printed wiring boards.

Therefore when doing the internal wiring by leading or using clamper, make sure wires are kept away from sharp edges, heat sink and high temperature or high pressure parts.

5. Safety after servicing

For safety, please check whether removed screws, parts and wires are same as before. And check there is no deterioration of serviced parts. Please make an insulation checking between plug and external metal parts.

6. Do not fix internal of power supply board/inverter.

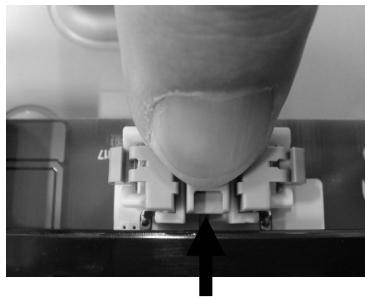
For safety, please do not perform service at the power supply board or inverter.

## TO INSERT THE MDF CONNECTOR

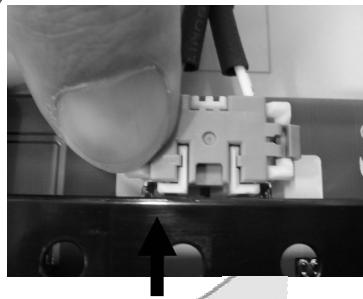
The connector might not be properly locked when only pressed from the middle.

Be sure to press both sides to confirm it is properly locked/

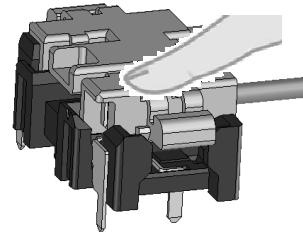
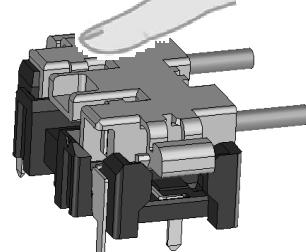
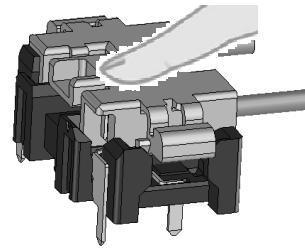
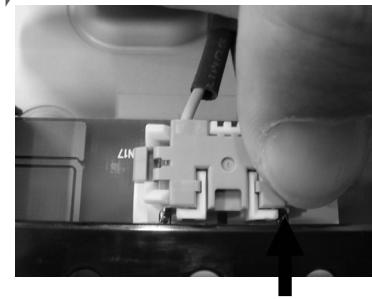
① Press the middle part of the connector to insert till it locks.



② Press the right side to confirm it is locked.



③ Press the left side to confirm it is locked.

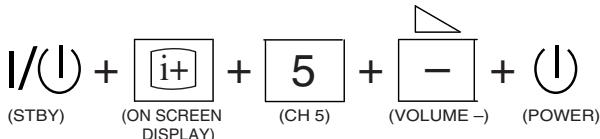


## SECTION 3 SERVICE ADJUSTMENTS

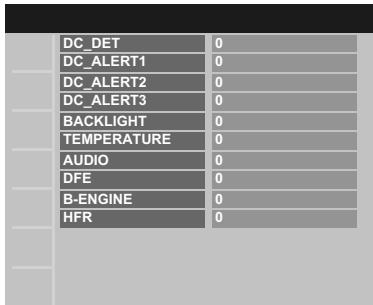
### 3-1. How to enter Service Mode

#### 3-1-1. Service adjustments to this model can be performed using the supplied Remote Commander RM-GA008

1. Turn on the power to the TV set and enter into the stand-by mode.
2. Press the following sequence of buttons on the Remote Commander.



3. The following menu will then appear on the screen.



4. Move to the relevant command using the up or down arrow buttons on the remote commander.
5. Press the right arrow button to enter into the required menu item.
6. Press the 'Menu' button on the remote commander to quit the service mode when all adjustments have been completed.

Note:

- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

### 3-1-2. Aging

1. Aging setting
  - i. Set no signal and monitor as aging mode.
2. Aging condition
  - i. Aging condition before white balance adjustment is as follows;

Supply Voltage : Rating

Time : 20 minutes or over  
(AGING\_TIMER register setting)

Ambient temp : 22 ~ 28°C

Brightness : Brightness is set by aging mode

Input : Set no signal except digital and analog RF  
(video/component/PC)

3. LED lighting pattern during aging

In case that AGING\_TIMER > 0

Green (0.5s) → off (0.5s) → Green (0.5s) → off (0.5s)  
Notes: Green (Power LED is ON/OFF)

In case that AGING\_TIMER = 0

Green (3.0s) → off (3.0s) → Green (3.0s) → off (3.0s)  
Notes: Green (Power LED is ON/OFF)

Note:

If set has been put on surface down, brightness surface irregularity is caused by static electricity. If so be, turn set over or keep it upright more than 30 seconds. As surface irregularity is vanished away, then check the set.

### 3-2. Signal Level Adjustment

#### 3-2-1. Set up of AD calibration 1 adjustment for terrestrial analog

The following adjustments are done via ECS.

1. Send ECS\_ADJUST\_LEVEL\_SETTING\_INIT command
2. Ensure noise reduction NR=3 (high),  
hreg\_P4\_cvd2\_85 [2:0] = 0  
ADJ\_COLOR\_PAL = 4 (for GA)
3. Set up correspond value to resistors below

Adjustment for RF (GAmodel\_Y75%,C75%\_w/oSetup)

Screen size	V26"	V32"	V40"	V46"	D32"	D40"	D46"
TAGET_Y_RF	160	160	160	160	160	160	160
TCD3_CONT_PAL_RF	128	128	128	128	128	128	128
TCD3_SAT_PAL_RF	128	128	128	128	128	128	128
TCD3_HUE_PAL_RF	128	128	128	128	128	128	128

Adjustment for Video (GAmodel\_Y75%,C75%w/oSetup)

Screen size	V26"	V32"	V40"	V46"	D32"	D40"	D46"
TAGET_Y_V	160	160	160	160	160	160	160
TCD3_CONT_*_V	128	128	128	128	128	128	128
TCD3_SAT_*_V	128	128	128	128	128	128	128
TCD3_HUE_*_V	128	128	128	128	128	128	128

Note for Input Signal [GA model] (PAL) included black and white, 75% Y and 75% C, without set up

### 3-2-2. Y signal calibration 1 adjustment for terrestrial analog

1. Input color bar via terrestrial analog
2. Send ECS command: ADJUST\_TCD3\_CONT\_RF. Wait success receive data.
3. Read value of S-REG\_APL\_LUMA via ECS. Then confirm that the value is within the range of below table.
4. Read value of S-REG\_TCD3\_CONTRAST via ECS.

Note :

Y signal calibration adjustment target of terrestrial analog input.

AD-AdjustRF Spec.	Spec.
Reference register name	SREG_TARGET_Y_RF±2
S-REG_APL_LUMA	

### 3-2-3. C signal of terrestrial analog Input/HUE calibration 1 adjustment

1. Send command: ADJUST\_TCD3\_HUE\_RF from ECS. Wait success receive data.
2. Read S-REG\_AVE\_VAL\_B\_AREA0 via ECS (READ\_AREA = 0)
3. Read S-REG\_AVE\_VAL\_B\_AREA6 via ECS (READ\_AREA = 6)
4. Confirm that 8 bits of MSB of 2) and 3) are in the range of below table.

Reference item	Specification
SREG_AVE_VAL_B_AREA* difference	±2

5. Read S-REG: TCD3\_SATURATION via ECS.
6. Restore the original value SREG\_NR = 4 (high)
7. Send ECS command: ADJUST\_LEVEL\_SETTING\_CLR blue level only.

As for READ\_AREA number and position.



Note:

If it is adjusted other signal (other color system), it needs restoring the value for changed SREGS and sending the ADJUST\_LEVEL\_SETTING\_CLR before signal changing.

### 3-2-4. Step before AD calibration-1 adjustment of video Input

1. Send ECS command: ADJUST\_LEVEL\_SETTING\_INIT. Wait success receive data
2. Set SREG\_NR=1 (low), hreg\_P4\_cvd2\_85 [2:0] = 0  
SREG\_ADJ\_COLOR\_PAL = 4 (for GA)
3. Set up correspond value to following resistors  
SREG\_TARGET\_Y\_V  
[For AEP, GA (Video-PAL)]  
SREG\_TCD3\_CONT\_PAL\_V  
SREG\_TCD3\_SAT\_PAL\_V  
SREG\_TCD3\_HUE\_PAL\_V

### 3-2-5. Y signal calibration-1 adjustment of video input. (PAL for AEP, GA)

1. Input 75% color bar signal via Video1 input.
2. Send ECS command: ADJUST\_TCD3\_CONT\_V. Wait success receive data.
3. Read value of S-REG: APL\_LUMA via ECS and confirm that the values are in corresponding range of below table.

AD-AdjustVideo Spec.	Spec.
Reference register name S-REG_APL_LUMA	SREG_TARGET_Y_V±2

4. Read value of S-REG: TCD3\_CONTRAST via ECS. Set offset of V input for S input setting by u-com internal.

Note: When both S video and video (CVBS) are connected, select video (CVBS) by setting SREG\_S\_INPUT <0> = 0

Change back this data after adjustment

Note for Input signal  
[GA model] (PAL, NTSC)

Included black and white, 75% Y and 75% C, without set up.

### 3-2-6. C signal of video Input/HUE calibration 1 adjustment (PAL for AEP, GA)

1. Input 75% color bar signal via video1 input.
2. Send command: ECS\_ADJUST\_TCD3\_HUE\_V via ECS. Wait success receive data
3. Read S-REG\_AVE\_VAL\_B\_AREA0 via ECS
4. Read S-REG\_AVE\_VAL\_B\_AREA6 via ECS
5. Confirm that 8 bits of MSB of 3) and 4) are in the range of below table

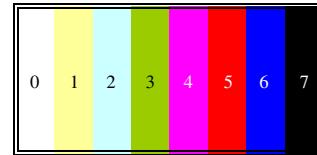
Reference item	Specification
SREG_AVE_VAL_B_AREA* difference	±2

6. Read S-REG\_AVE\_VAL\_B\_AREA2 via ECS (GA-NTSC)
7. Read S-REG\_AVE\_VAL\_B\_AREA4 via ECS
8. Confirm that 8 bits of MSB of 6) and 7) are in the range of below table (GA-NTSC)

Reference item	Specification
SREG_AVE_VAL_B_AREA* difference	±2

9. Read S-REG\_TCD3\_SATURATION via ECS
10. Read S-REG\_TCD3\_HUE via ECS. (GA-NTSC)

As for READ\_AREA number and position



### 3-2-7. Restoring original setting

1. Restore the original value SREG\_NR = 2 (mid)
2. Send ECS command: ADJUST\_LEVEL\_SETTING\_CLR Blue level only. S Input set offset of V input.

### 3-2-8. Setup before adjustment Y signal of video Input. (NTSC for GA)

1. Send ECS command: ADJUST\_LEVEL\_SETTING\_INIT wait success Receive Data.
2. Set SREG\_NR = 1 (low), hreg\_P4\_CVD2\_85 [2:0] = 0  
SREG\_ADJ\_COLOR\_PAL = 1 (for GA)
3. Set up correspond value to following resistors.  
SREG\_TARGET\_Y\_V (for GA NTSC)  
[FOR GA (Video-NTSC)]  
SREG\_TCD3\_CONT\_OFST\_V  
SREG\_TCD3\_SAT\_OFST\_V  
SREG\_TCD3\_HUE\_OFST\_V

### 3-2-9. Y signal calibration-1 adjustment of video input. (NTSC for GA)

1. Input 75% color bar signal via video1 input
2. Implement 2), 3) and 4) of item 3-2-5

### 3-2-10. C signal of video Input/HUE calibration 1 adjustment. (NTSC for GA)

1. Input 75% color bar signal via video1 input
2. Implement 2) to 10) of item 3-2-6

### 3-2-11. Restoring original setting

1. Restore the original value SREG\_NR = 2 (mid)
2. Send ECS command: ADJUST\_LEVEL\_SETTING\_CLR

## 3-3. Gamma adjustment

The following adjustments are done via ECS

Note:

Before Gamma adjustment can begin the set needs to do as follows

Aging time : 20 minutes since it is cooled.

Ambient temperature : 22 Degree - 28 Degree.

### 3-3-1. Set up adjustment mode

1. Set: SREG\_BRIGHT = 50
2. i) Set up SREG\_COL\_MTRX\_IDX\_OFF = 4  
ii) Set up SREG\_COL\_MTRX\_IDX\_L = 4  
iii) Set up SREG\_COL\_MTRX\_IDX\_M = 4  
iv) Set up SREG\_COL\_MTRX\_IDX\_H = 4
3. Set up SREG\_G\_GAM\_IDX\_OFST = 15
4. Wait for setting of 3)

### 3-3-2. Set up Trident internal SG and measure brightness

1. Set up SREG\_TEST\_G\_LEVEL = 204
2. Measure brightness A

### 3-3-3. Set up Trident internal SG and measure brightness

1. Set up SREG\_TEST\_G\_LEVEL =102
2. Measure brightness B
3. Set up SREG\_MEASURE\_GAM\_01 =  
(brightness B/brightness A)\* 10000
4. Send the command: Gamma\_Tbl\_search\_1

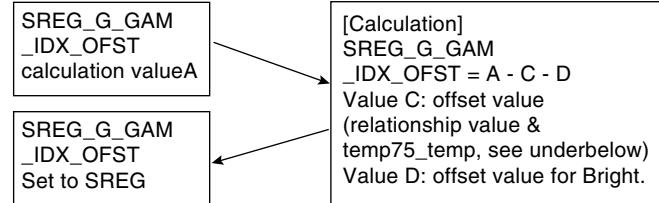
### 3-3-4. Set up Trident internal SG and measure brightness

1. Set up SREG\_TEST\_G\_LEVEL = 153
2. Measure brightness C
3. Set up SREG\_MEASURE\_GAM\_02 =  
(brightness C/brightness A)\* 10000
4. Send command : Gamma\_Tbl search\_2
5. Wait for calculation process in µCOM  
(SREG\_G\_GAM\_IDX\_OFST)

### 3-3-5. Set the register

1. Calculate SREG\_G\_GAM\_IDX\_OFST as below formula and table

Note for process of (5)



offset value C

20inchs	temp75_temp <11500	11500=<temp75_temp<12100	12100=<temp75_temp	
	2	1	0	
26inchs	temp75_temp <11500	11500=<temp75_temp<12100	12100=<temp75_temp	
	2	1	0	
32inchs	temp75_temp <11500	11500=<temp75_temp<12100	12100=<temp75_temp	
	2	1	0	
40inchs	temp75_temp <11500	11500=<temp75_temp<12100	12100=<temp75_temp	
	2	1	0	
46inchs	temp75_temp <10900	10900=<temp75_temp<11250	11250=<temp75_temp<12200	12200=<temp75_temp
	3	2	1	0

2. Set SREG\_G\_GAM\_IDX\_OFST as the value of 1)

Reference: If the set does not power off, it can be separated Gamma and WB adjustment. In this case, please restore the setting as follows;

1. Set SREG\_COL\_MTRX\_IDX\_OFF = 3  
SREG\_COL\_MTRX\_IDX\_L = 3  
SREG\_COL\_MTRX\_IDX\_M = 3  
SREG\_COL\_MTRX\_IDX\_H = 3
2. Send ECS command: CSC\_BYPASS\_INIT\_CLR

### 3-4. White balance adjustment

Adjust the following items via ECS

#### 3-4-1. Initial setting for white balance

- i) Set up SREG\_COL\_MTRX\_IDX\_OFF = 3
- ii) Set up SREG\_COL\_MTRX\_IDX\_L = 3
- iii) Set up SREG\_COL\_MTRX\_IDX\_M = 3
- iv) Set up SREG\_COL\_MTRX\_IDX\_H = 3

#### 3-4-2. White balance adjustment when color temperature is "cool"

1. Set up SREG\_COLOR\_TEMP = 0 (Cool)

Reference: To separate GAMMA & WB adjustment, operate the following initial setting before WB adjustment

- Send ECS command: CSC\_BYPASS\_INIT\_SET

2. Set SREG\_TEST\_G\_LEVEL = 204 (80 IRE)
3. Adjust values of SREG\_WB\_GAM\_R (B) 05 to be the chroma in below table
4. Set SREG\_TEST\_G\_LEVEL = 128 (50 IRE)
5. Adjust values of SREG\_WB\_GAM\_R (B) 04 to be the chroma in below table
6. Set SREG\_TEST\_G\_LEVEL = 76 (30 IRE)
7. Adjust values of SREG\_WB\_GAM\_R (B) 03 to be the chroma in below table
8. Set SREG\_TEST\_G\_LEVEL = 51 (20 IRE)
9. Adjust values of SREG\_WB\_GAM\_R (B) 02 to be chroma in below table

The target of White balance adjustment when color temperature is "Cool".

Internal signal (IRE)	SREG_Test_G_LEVEL	SPEC	target			
			26"	32"	40"	46"
20	51	x				
		y				
		u'				
		v'				
30	76	x	0.2719	0.2734	0.2739	0.2745
		y	0.2788	0.2741	0.2779	0.2795
		u'	0.1875	0.1904	0.1893	0.1891
		v'	0.4325	0.4296	0.4322	0.4333
50	128	x	0.2751	0.2743	0.2724	0.2729
		y	0.2732	0.2717	0.2662	0.2670
		u'	0.1921	0.1921	0.1929	0.1929
		v'	0.4292	0.4281	0.4241	0.4247
80	204	x	0.2728	0.2730	0.2726	0.2723
		y	0.2688	0.2719	0.2705	0.2702
		u'	0.1921	0.1910	0.1913	0.1912
		v'	0.4259	0.4281	0.4270	0.4268

10. Set SREG\_WB\_GAM\_R (B) 01 as follows;

SREG\_WB\_GAM\_R (B) 01  
= SREG\_WB\_GAM\_R (B) 02  
+ [SREG\_WB\_GAM\_R (B) 02-SREG\_WB\_GAM\_R (B) 03]

11. Set SREG\_WB\_GAM\_R06-07 and SREG\_WB\_GAM\_B06 ~ 07 as follows;

[When ADJ data SREG\_WB\_GAM\_B05 > 154]  
[ADJ data SREG\_WB\_GAM\_R05 > 128]  
SREG\_WB\_GAM\_R (B) 06 = SREG\_WB\_GAM\_R (B) 05  
- [SREG\_WB\_GAM\_R (B) 05 - SREG\_WB\_GAM\_R (B) 04] / 2  
SREG\_WB\_GAM\_R (B) 07 = 128  
[ADJ data SREG\_WB\_GAM\_R05 = < 128]  
SREG\_WB\_GAM\_B06 = SREG\_WB\_GAM\_B05  
- [SREG\_WB\_GAM\_B05-SREG\_WB\_GAM\_B04] / 2  
SREG\_WB\_GAM\_B07 = 128  
SREG\_WB\_GAM\_R06 = SREG\_WB\_GAM\_R07  
= SREG\_WB\_GAM\_R05  
[When ADJ data SREG\_WB\_GAM\_B05 = < 154]  
SREG\_WB\_GAM\_R (B) 06 = SREG\_WB\_GAM\_R (B) 07  
= SREG\_WB\_GAM\_R (B) 05

#### 3-4-3. White balance adjustment when color temperature is "Neutral"

1. Set up SREG\_COLOR\_TEMP = 1 (Neutral)
2. Set SREG\_TEST\_G\_LEVEL = 204 (80 IRE)
3. Adjust values of SREG\_WB\_R (B) 05\_OFST to be the chroma in the below table
4. Set SREG\_TEST\_G\_LEVEL = 128 (50 IRE)
5. Adjust values of SREG\_WB\_R (B) 04\_OFST to be the chroma in the below table
6. Set SREG\_TEST\_G\_LEVEL = 76 (30 IRE)
7. Adjust values of SREG\_WB\_R (B) 03\_OFST to be the chroma in the below table
8. Set SREG\_TEST\_G\_LEVEL = 51 (20 IRE)
9. Adjust values of SREG\_WB\_R (B) 02\_OFST to be chroma in the below table

The target of White balance adjustment when color temperature is "Neutral".

Internal signal (IRE)	SREG_Test_G_Level	SPEC	target			
			26"	32"	40"	46"
20	51	x	0.2818	0.2813	0.2806	0.2820
		y	0.2839	0.2878	0.2790	0.2812
		u'	0.1929	0.1910	0.1940	0.1941
		v'	0.4373	0.4397	0.4339	0.4356
30	76	x	0.2849	0.2841	0.2821	0.2830
		y	0.2867	0.2883	0.2823	0.2843
		u'	0.1941	0.1929	0.1938	0.1936
		v'	0.4395	0.4404	0.4363	0.4377
50	128	x	0.2838	0.2833	0.2849	0.2852
		y	0.2843	0.2893	0.2846	0.2850
		u'	0.1943	0.1919	0.1950	0.1950
		v'	0.4378	0.4409	0.4382	0.4385
80	204	x	0.2827	0.2822	0.2843	0.2847
		y	0.2860	0.2889	0.2875	0.2883
		u'	0.1928	0.1912	0.1934	0.1933
		v'	0.4388	0.4405	0.4399	0.4405

10. Set values of SREG\_WB\_GAM\_R (B) 01\_OFST as follows;

SREG\_WB\_R (B) 01\_OFST  
= SREG\_WB\_R (B) 02\_OFST  
+ [SREG\_WB\_R (B) 02\_OFST-SREG\_WB\_R (B) 03\_OFST]

11. Set values of SREG\_WB\_R06 ~ 07\_OFST and WB\_B 06 ~ 07\_OFST as follows;
- WB\_B 06 ~ 07\_OFST  
SREG\_WB\_R (B) 07\_OFST  
= SREG\_WB\_R (B) 05\_OFST  
+ [SREG\_WB\_R (B) 05\_OFST-SREG\_WB\_R (B) 04\_OFST]
- SREG\_WB\_R (B) 06\_OFST  
= SREG\_WB\_R (B) 05\_OFST  
+ [SREG\_WB\_R (B) 05\_OFST-SREG\_WB\_R (B) 04\_OFST] / 2
- Send ECS command: COLOR\_SAVE

#### 3-4-4. White balance adjustment when color temperature is "Warm 1"

1. Set up SREG\_COLOR\_TEMP = 2 (warm 1)
2. Set SREG\_TEST\_G\_LEVEL = 204 (80 IRE)
3. Adjust values of SREG\_WB\_R (B) 05\_OFST to be the chroma in the below table
4. Set SREG\_TEST\_G\_LEVEL = 128 (50 IRE)
5. Adjust values of SREG\_WB\_R (B) 04\_OFST to be the chroma in the below table
6. Set SREG\_TEST\_G\_LEVEL = 76 (30 IRE)
7. Adjust values of SREG\_WB\_R (B) 03\_OFST to be the chroma in the below table
8. Set SREG\_TEST\_G\_LEVEL = 51 (20 IRE)
9. Adjust values of SREG\_WB\_R (B) 02\_OFST to be the chroma in the below table

The target of White balance adjustment when color temperature is "Warm1".

Internal signal (IRE)	SREG_Test_G_LEVEL	SPEC	target				
			26"	32"	40"	46"	<-
20	51	0.5->0.7->1JND	x 0.2898	0.2869	0.2880	0.2890	<-
			y 0.2991	0.2975	0.2911	0.2943	
		.0014->.00196->.0028	u' 0.1929	0.1914	0.1947	0.1942	
			v' 0.4479	0.4465	0.4428	0.4449	
30	76	0.5->0.7->1JND	x 0.2861	0.2880	0.2871	0.2887	
			y 0.2929	0.2981	0.2903	0.2917	
		.0014->.00196->.0028	u' 0.1926	0.1920	0.1943	0.1950	
			v' 0.4436	0.4471	0.4421	0.4432	
50	128	0.5->0.7JND	x 0.2866	0.2885	0.2887	0.2895	
			y 0.2939	0.2991	0.2976	0.2996	
		.0014->.00196	u' 0.1926	0.1919	0.1927	0.1925	
			v' 0.4443	0.4477	0.4469	0.4482	
80	204	0.3->0.5JND	x 0.2883	0.2895	0.2922	0.2934	
			y 0.2974	0.2997	0.3003	0.3018	
		.00008->.00014	u' 0.1925	0.1924	0.1942	0.1945	
			v' 0.4467	0.4483	0.4490	0.4501	

10. Set values of SREG\_WB\_GAM\_R (B) 01\_OFST as follows  
SREG\_WB\_R (B) 01\_OFST  
= SREG\_WB\_R (B) 02\_OFST  
+ [SREG\_WB\_R (B) 02\_OFST-SREG\_WB\_R (B) 03\_OFST]
11. Set values of SREG\_WB\_R06 ~ 07\_OFST and WB\_B06 ~ 07\_OFST as follows;  
SREG\_WB\_R (B) 07\_OFST  
= SREG\_WB\_R (B) 05\_OFST  
+ [SREG\_WB\_R (B) 05\_OFST-SREG\_WB\_R (B) 04\_OFST]  
SREG\_WB\_R (B) 06\_OFST  
= SREG\_WB\_R (B) 05\_OFST  
+ [SREG\_WB\_R (B) 05\_OFST-SREG\_WB\_R (B) 04\_OFST] /2
12. Send ECS command: COLOR\_SAVE

#### 3-4-5. White balance adjustment when color temperature is "Warm 2"

1. Set up SREG\_COLOR\_TEMP = 3 (Warm 2)
2. Set SREG\_TEST\_G\_LEVEL = 204 (80 IRE)
3. Adjust values of SREG\_WB\_R (B) 05\_OFST to be the chroma in below table
4. Set SREG\_TEST\_G\_LEVEL = 128 (50 IRE)
5. Adjust values of SREG\_WB\_R (B) 04\_OFST to be the chroma in below table
6. Set SREG\_TEST\_G\_LEVEL = 76 (30 IRE)
7. Adjust values of SREG\_WB\_R (B) 03\_OFST to be the chroma in below table
8. Set SREG\_TEST\_G\_LEVEL = 51 (20 IRE)
9. Adjust values of SREG\_WB\_R (B) 02\_OFST to be the chroma in below table.

The target of White balance adjustment when color temperature is "Warm2".

Internal signal (IRE)	SREG_Test_G_Level	SPEC	target				
			26"	32"	40"	46"	<-
20	51	0.5->0.7->1JND	x 0.3231	0.3191	0.3119	0.3133	<-
			y 0.3253	0.3261	0.3097	0.3130	
		.0014->.00196->.0028	u' 0.2065	0.2034	0.2048	0.2045	
			v' 0.4679	0.4677	0.4575	0.4596	
30	76	0.5->0.7->1JND	x 0.3327	0.3238	0.3135	0.3157	
			y 0.3494	0.3245	0.3069	0.3090	
		.0014->.00196->.0028	u' 0.2039	0.2074	0.2071	0.2078	
			v' 0.4818	0.4675	0.4561	0.4577	
50	128	0.5->0.7JND	x 0.3222	0.3326	0.3248	0.3261	
			y 0.3273	0.3403	0.3271	0.3283	
		.0014->.00196	u' 0.2051	0.2073	0.2070	0.2075	
			v' 0.4688	0.4772	0.4691	0.4699	
80	204	0.3->0.5JND	x 0.3264	0.3136	0.3166	0.3185	
			y 0.3377	0.3255	0.3161	0.3182	
		.00008->.00014	u' 0.2040	0.1998	0.2056	0.2061	
			v' 0.4749	0.4666	0.4618	0.4633	

10. Set values of SREG\_WB\_GAM\_R (B) 01\_OFST as follows  
SREG\_WB\_R (B) 01\_OFST  
= SREG\_WB\_R (B) 02\_OFST  
+ [SREG\_WB\_R (B) 02\_OFST-SREG\_WB\_R (B) 03\_OFST]
11. Set values of SREG\_WB\_R06 ~ 07\_OFST and WB\_B06 ~ 07\_OFST as follows;  
SREG\_WB\_R (B) 07\_OFST  
= SREG\_WB\_R (B) 05\_OFST  
+ [SREG\_WB\_R (B) 05\_OFST-SREG\_WB\_R (B) 04\_OFST]  
SREG\_WB\_R (B) 06\_OFST  
= SREG\_WB\_R (B) 05\_OFST  
+ [SREG\_WB\_R (B) 05\_OFST-SREG\_WB\_R (B) 04\_OFST] /2
12. Send ECS command: COLOR\_SAVE

#### 3-5. Panel Replacement

When replacing the panel please reset the gamma and white balance before performing W/B for new panel.

#### 3-6. Board Replacement

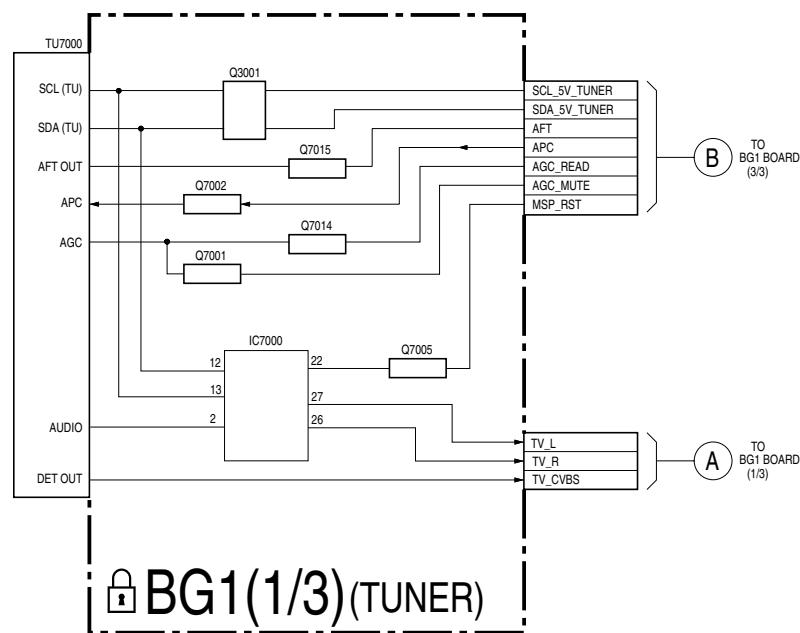
##### 3-6-1. BG1 Board Replacement

When replacing the BG1 board please readjust the AD and readjust the W/B.

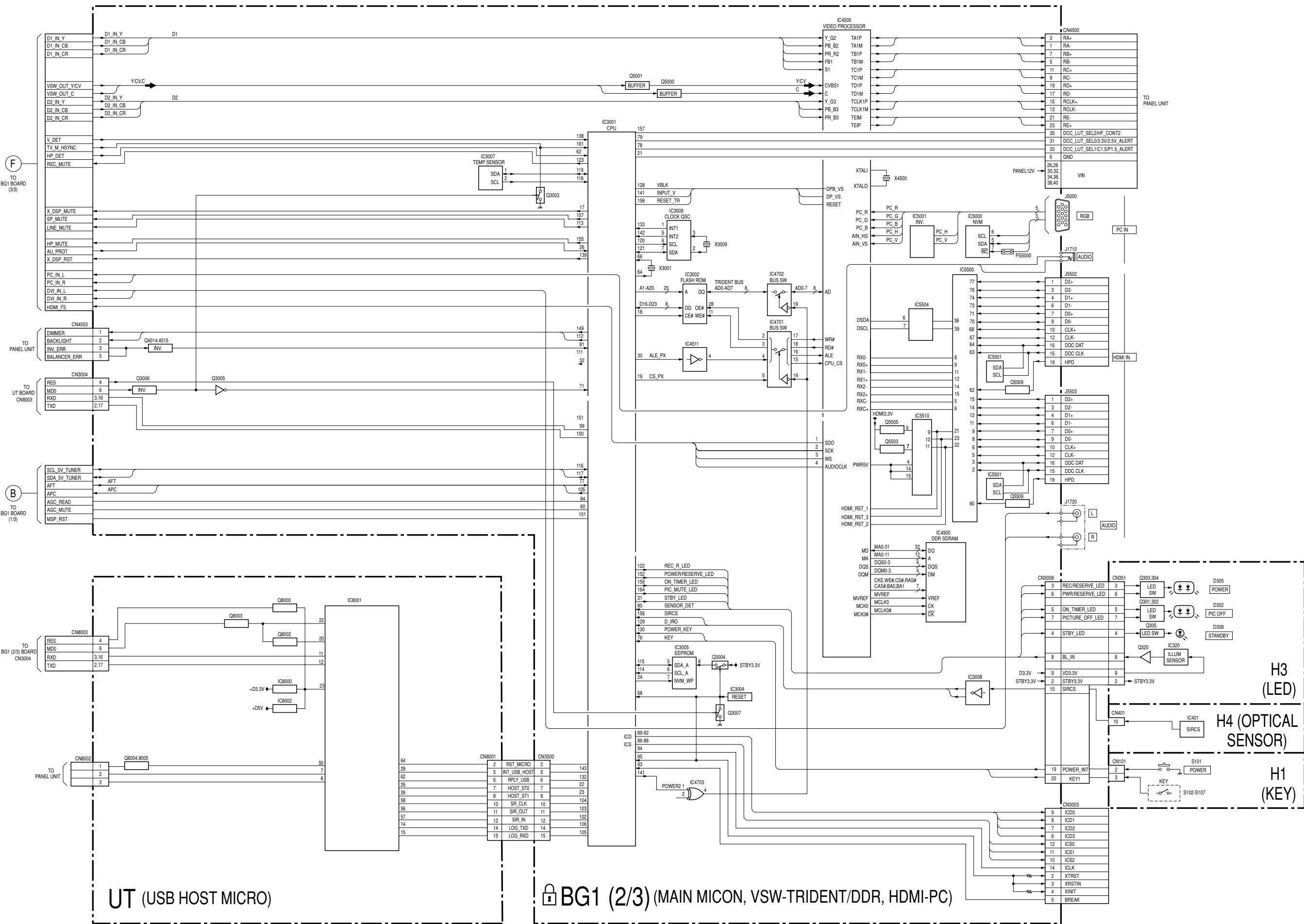
## SECTION 4 DIAGRAMS

### 4-1. BLOCK DIAGRAM

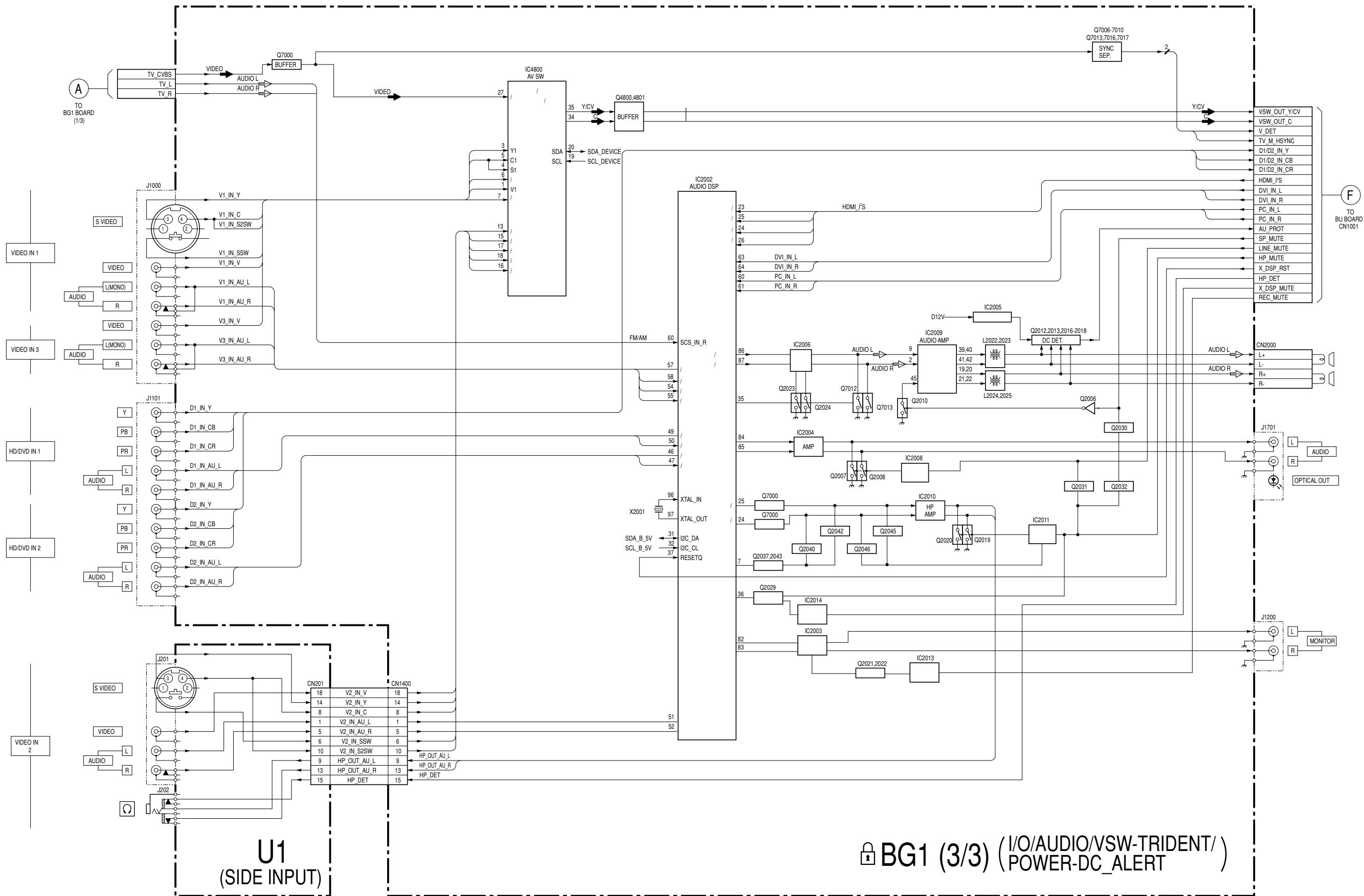
#### 4-1-1. BG1 (1/3) BLOCK DIAGRAM



4-1-2. BG1 (2/3), H1, H3, H4 AND UT BLOCK DIAGRAMS

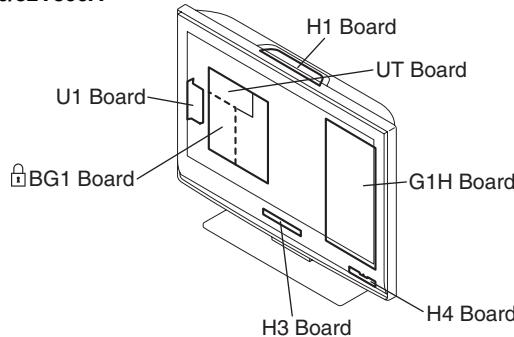


### **4-1-3. BG1 (3/3) AND U1 BLOCK DIAGRAMS**

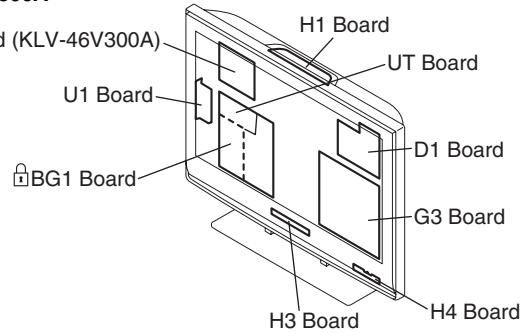


## 4-2. CIRCUIT BOARDS LOCATION

KLV-26/32V300A



KLV-40/46V300A



## 4-3. SCHEMATIC DIAGRAM INFORMATION

### Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. (pF:  $\mu\mu\text{F}$ ) Capacitors without voltage indication are all 50V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.
  - Pitch: 5 mm
  - Rating electrical power 1/4W (CHIP: 1/10W)
- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- All voltages are in V.
- : earth-ground
- : earth-chassis
- All voltages are in V.
- Readings are taken with a 10 M $\Omega$  digital multimeter.**
- Readings are taken with a color-bar signal input.**
- Voltage variations may be noted due to normal production tolerances.**
- \* : Cannot be measured.
- NO MARK : PAL**
- Circled numbers are waveform references.**
- : B+bus.
- : B-bus.
- : signal path.

### Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

**Note:** The component identified by shading and mark are critical for safety. Replace only with part number specified.

**Note:** The components identified by mark contain confidential information. Strictly follow the instructions whenever the components are repaired and /or replaced.

Device	Printed symbol	Terminal name	Circuit
Transistor		Collector Base Emitter	
Transistor		Collector Base Emitter	
Diode		Cathode Anode	
Diode		Cathode Anode (NC)	
Diode		Cathode Anode (NC)	
Diode		Common Anode Cathode	
Diode		Common Anode Cathode	
Diode		Common Anode Anode	
Diode		Common Anode Cathode	
Diode		Common Cathode Cathode	
Diode		Common Cathode Cathode	
Diode		Anode Anode Cathode Anode	
Transistor (FET)		Drain Source Gate	
Transistor (FET)		Drain Source Gate	
Transistor (FET)		Source Drain Gate	
Transistor		Emitter Collector Base	
Transistor		C2 B1 E1 E2 B2 C1	
Transistor		C1 B2 E2 E1 B1 C2	
Transistor		C1 B2 E2 E1 B1 C2	
Transistor		C1 B2 E2 E1 B1 C2	
Transistor		E1 Q B1 O C1 O Q2	
Transistor		E2 B1 E1 C2 C1(B2)	
Transistor		B1 E1 E2 C1 C2	
Transistor		(B2) E2 E1 B1 C2 C1	

#### 4-3-1. BG1 Board – (Block 001)

##### WAX3 BG1 BOARD INFORMATION

NO	FUNCTION
001	COVER
002	I/O
003	AUDIO
004	MAIN MICON
005	VSW - TRIDENT
006	DDR
007	HDMI - PC
008	POWER - DC_ALERT
009	TUNER

Note: "BG1" board is divided into 9 blocks.

Each is named by its function and block "number".

E.g.: Main MICON ( 004 /009), which means block "004" of 009.

Joint connection can be identified using the function name

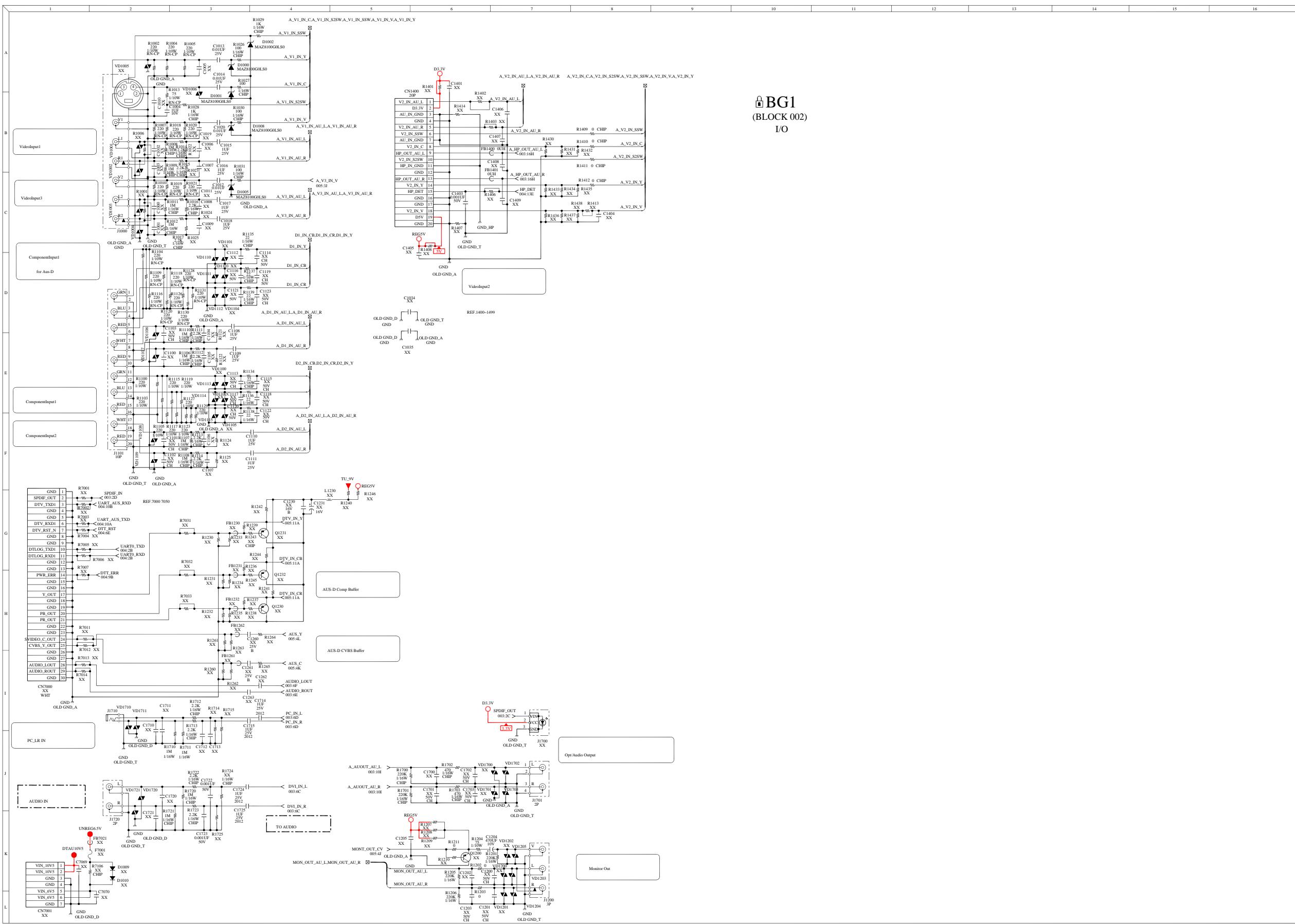
Eg:--> V\_BLK 005:10J

Meaning: Block 004 joint "V\_BLK" is connected to  
Block 005 joint "V\_BLK" located at grid 10J.

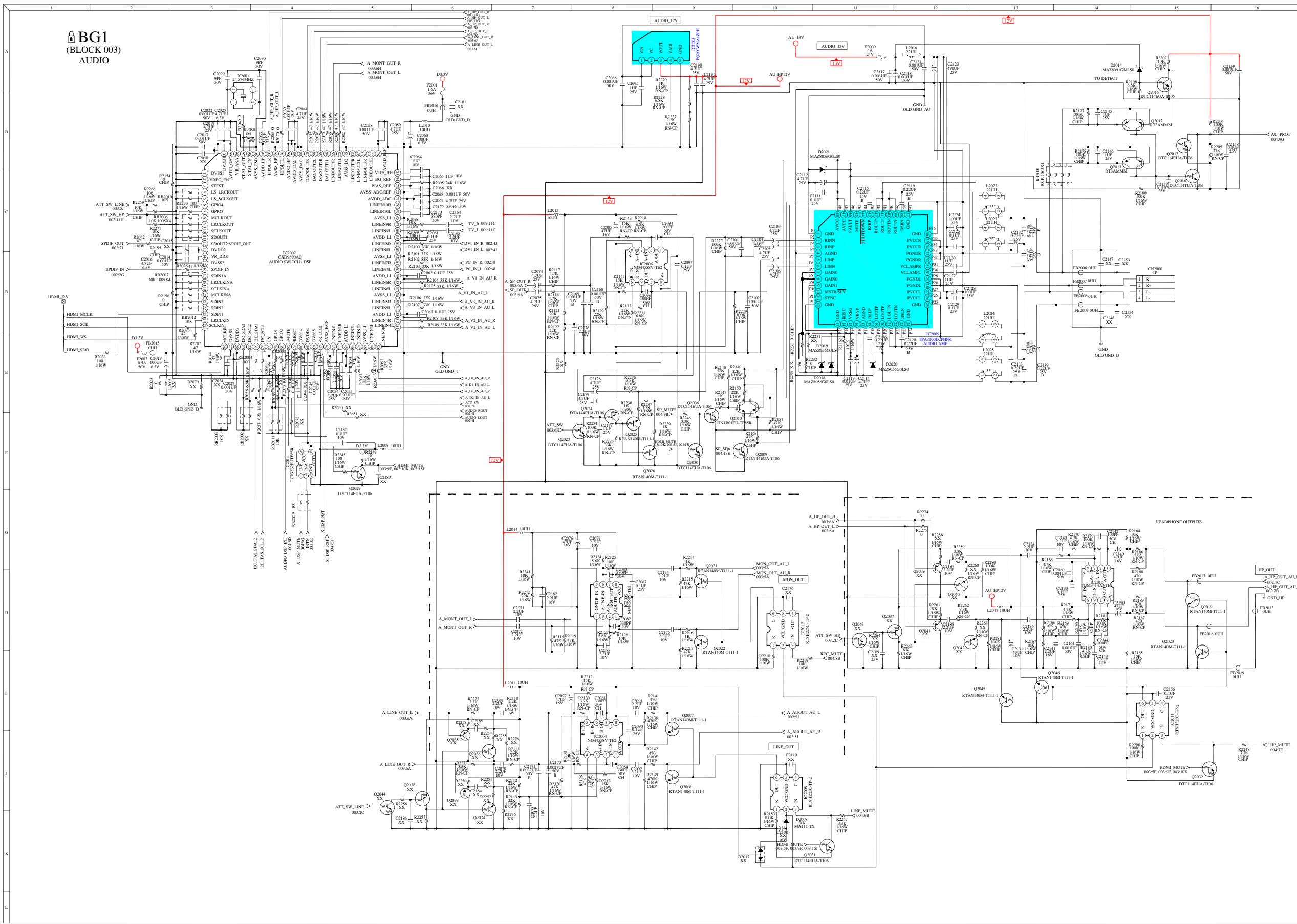
 **BG1**  
(001/009)

B-WAX3(07)-...-BG1(001)-26/32/40/46V300A

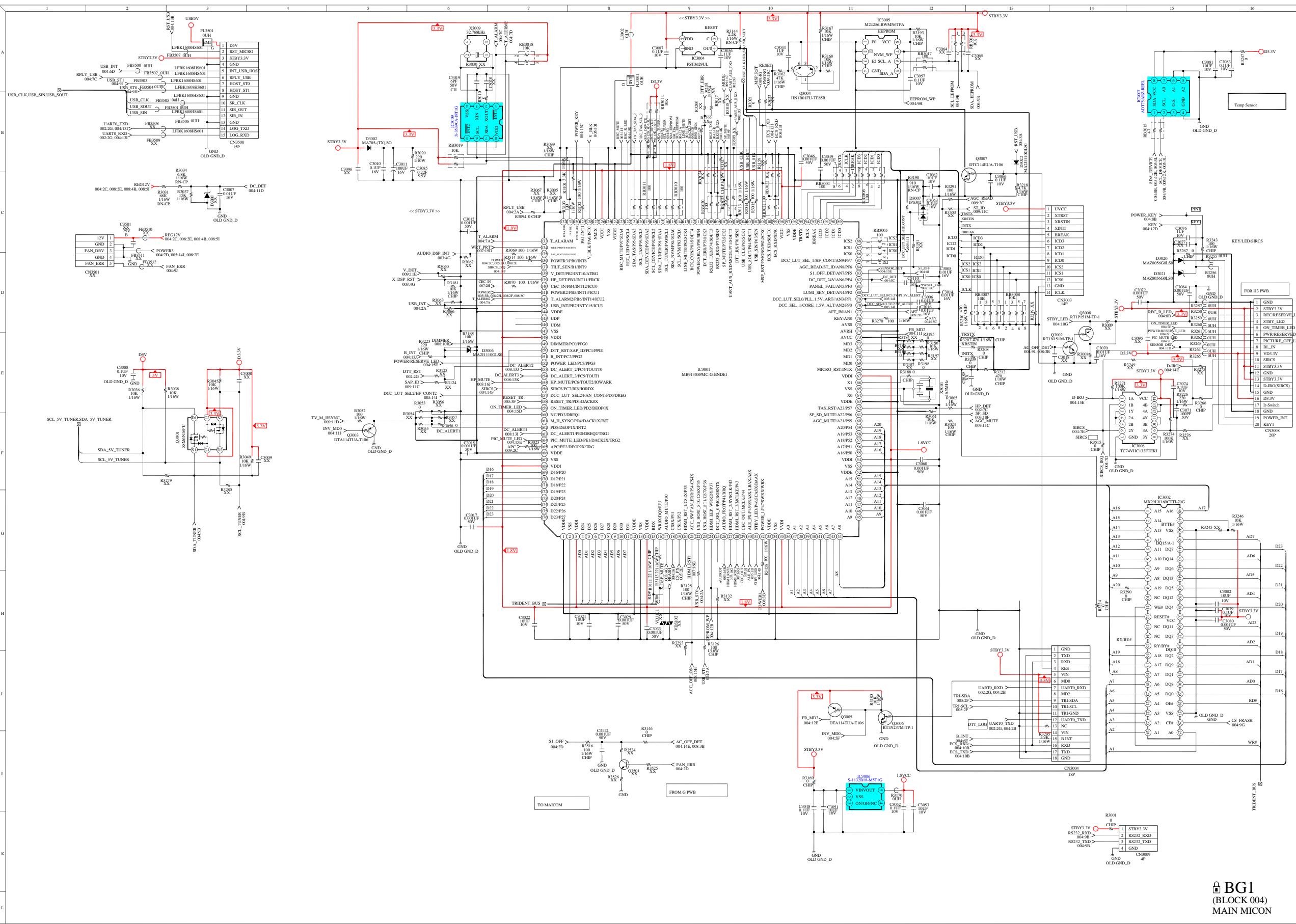
#### 4-3-2. BG1 Board --- (Block 002)



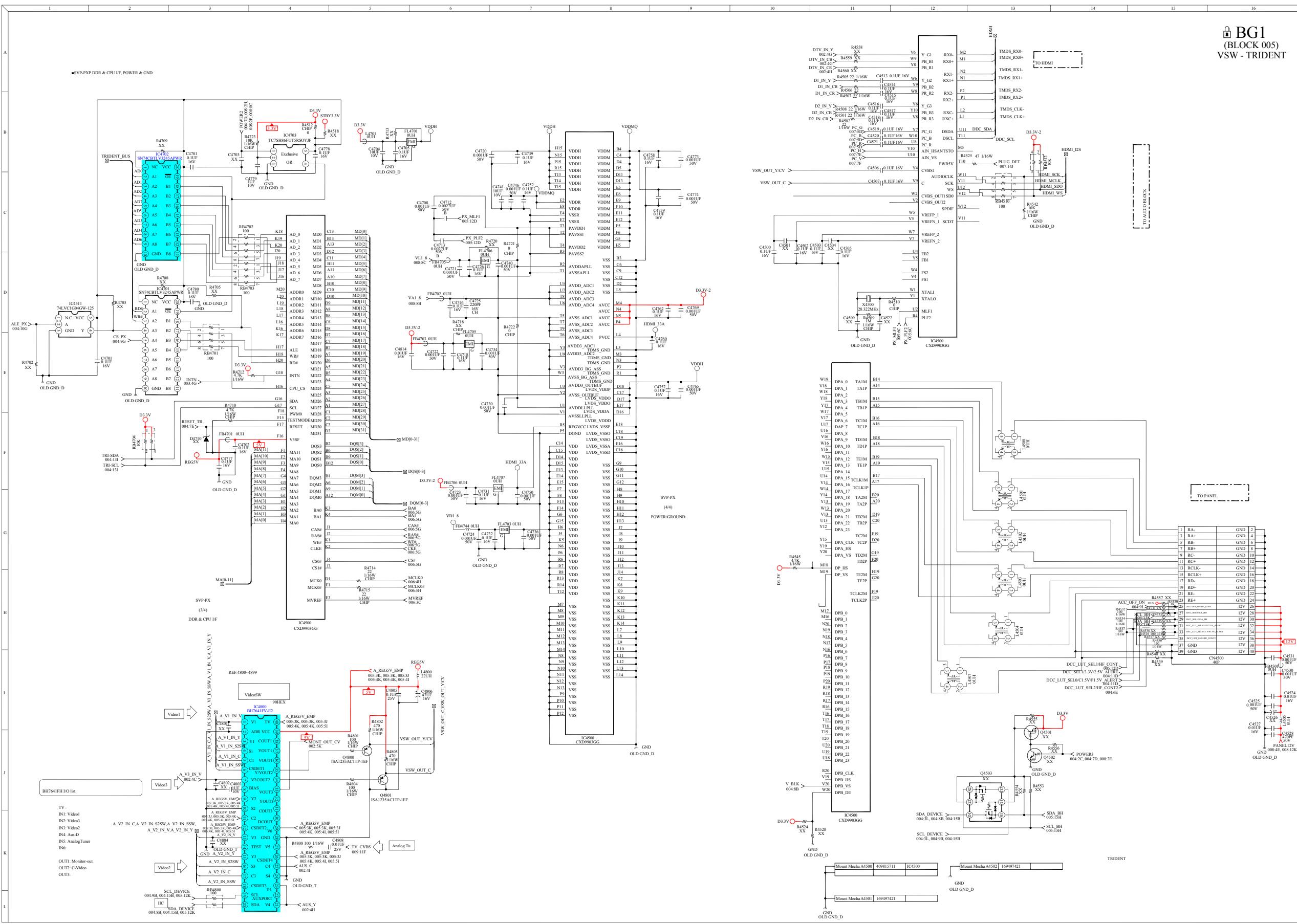
### **4-3-3. BG1 Board --- (Block 003)**



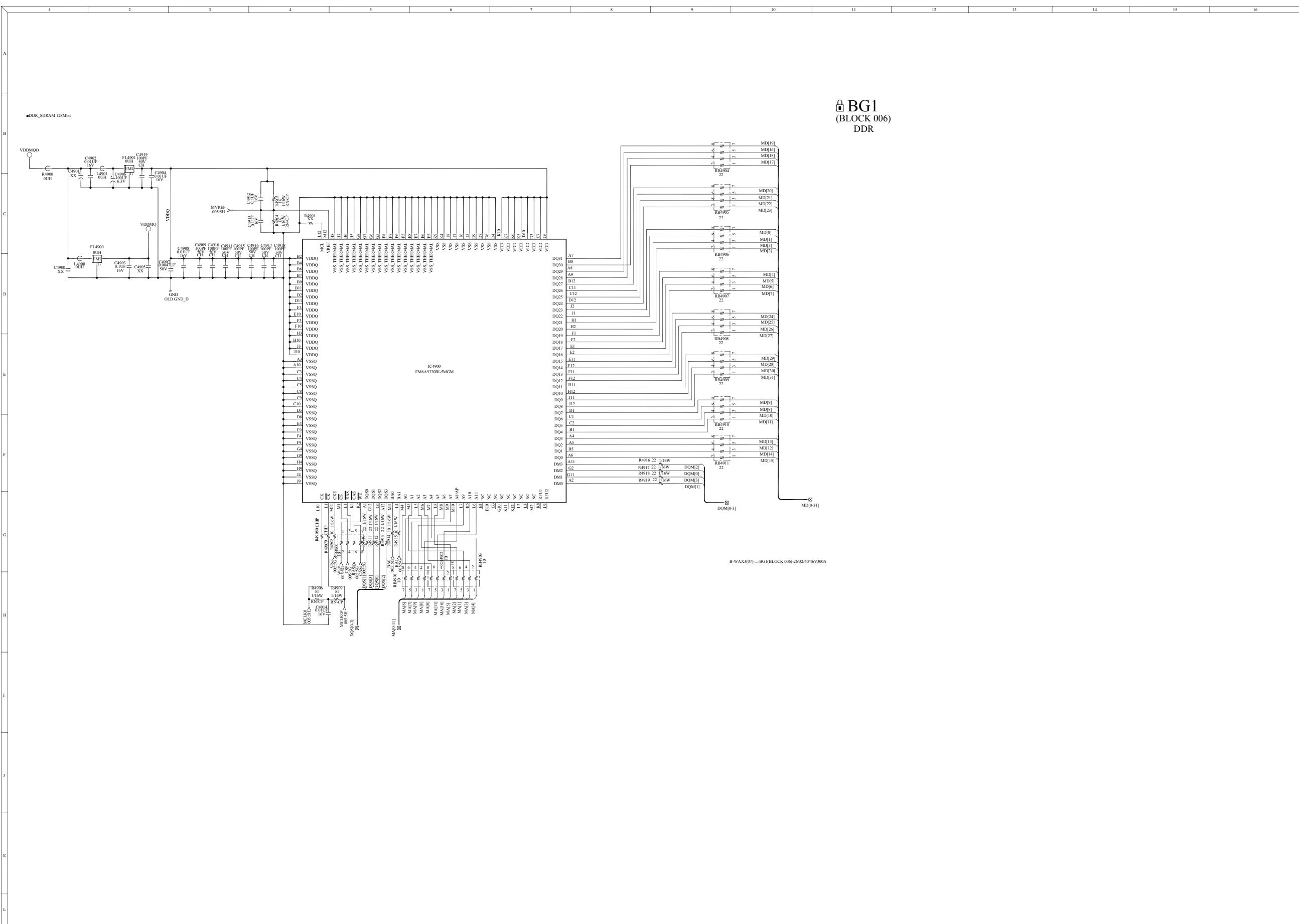
## 4-3-4. BG1 Board --- (Block 004)



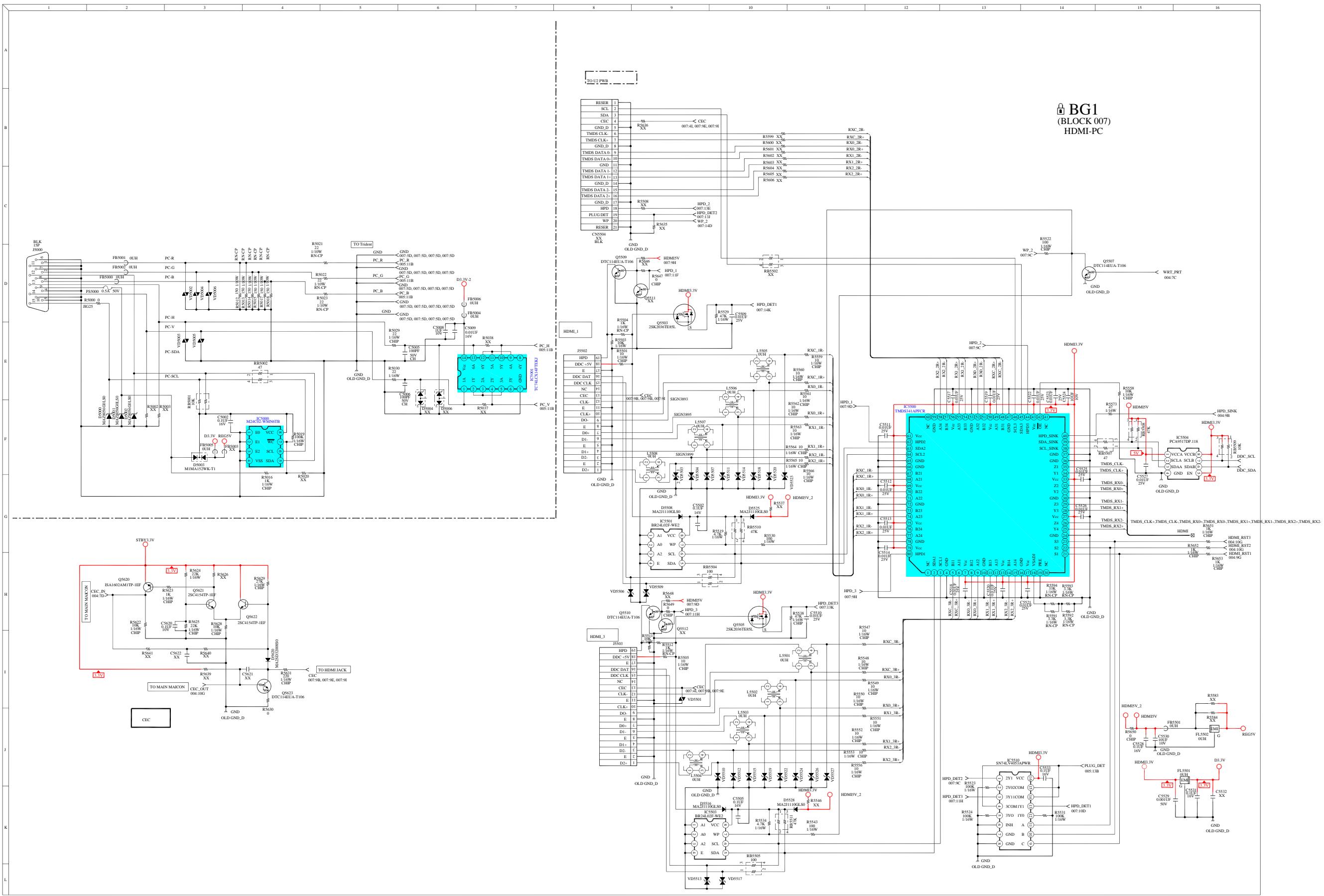
#### **4-3-5. BG1 Board --- (Block 005)**



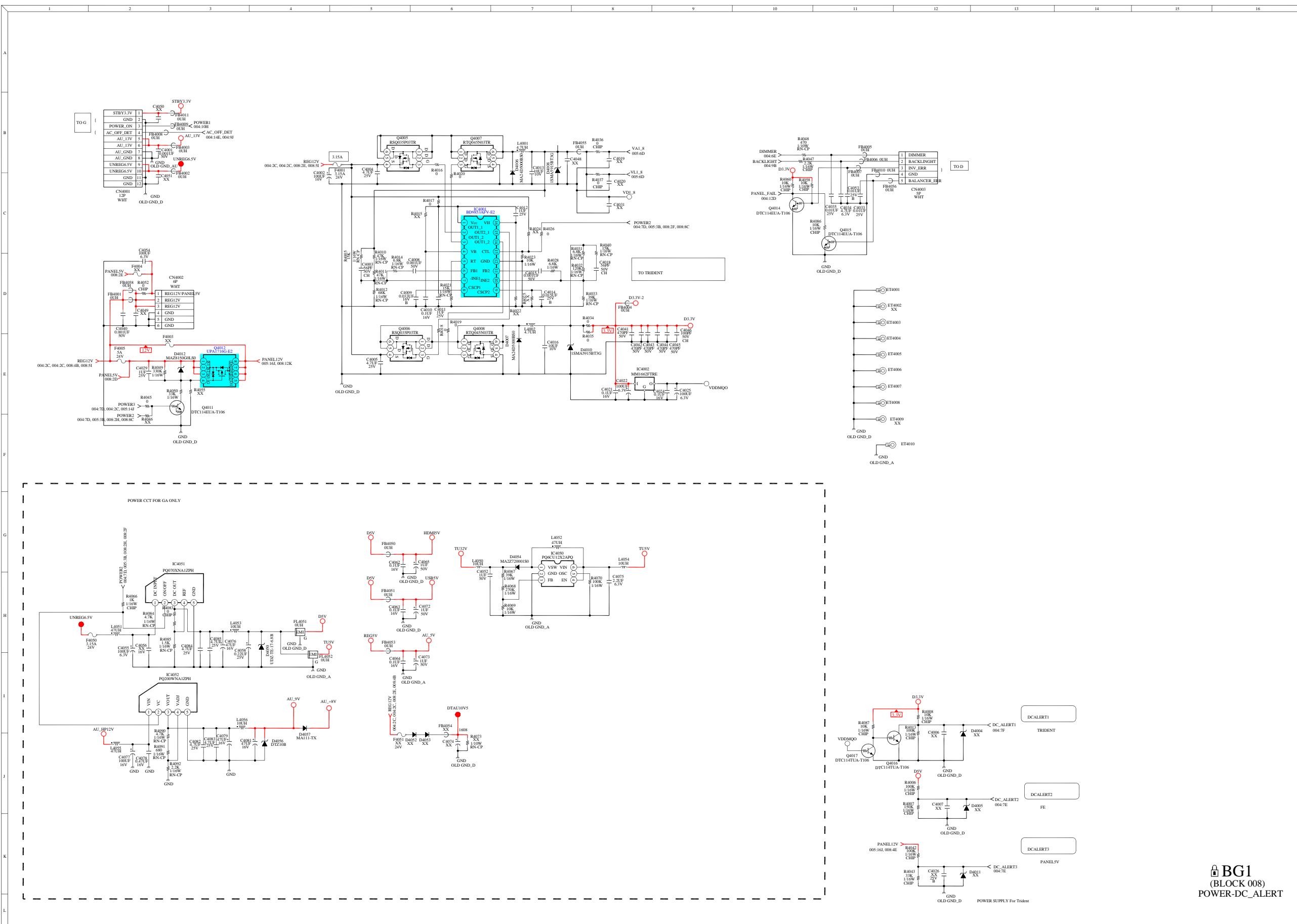
#### **4-3-6. BG1 Board --- (Block 006)**



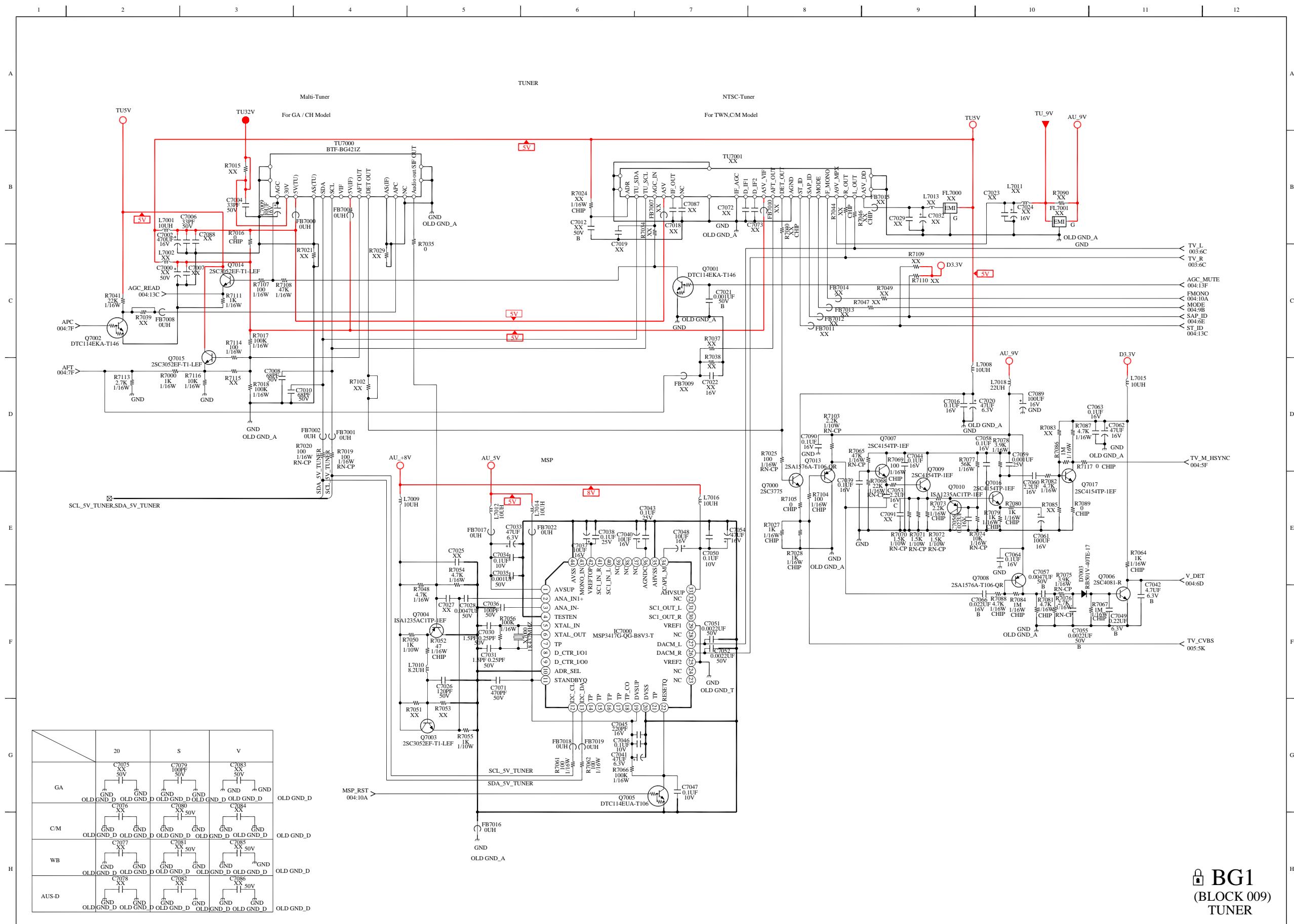
4-3-7. BG1 Board --- (Block 007)



4-3-8. BG1 Board --- (Block 008)



4-3-9. BG1 Board --- (Block 009)



**4-3-10. G1H, G3, D1 & D2 Boards Schematic Diagram**

1 | 2 | 3 | 4 | 5 | 6 | 7 |

A

B

C

Due to complexity of the board G1H (KLV-26/32V300A), G3 (KLV-40/46V300A), D1 40 (KLV-40V300A) and D1 46, D2 (KLV-46V300A), performing component level field repairs is not recommended. If service is required, complete board replacement is required, therefore schematic are not included. For part number information refer to the Exploded view or Electrical Parts lists section of this manual.

D

E

F

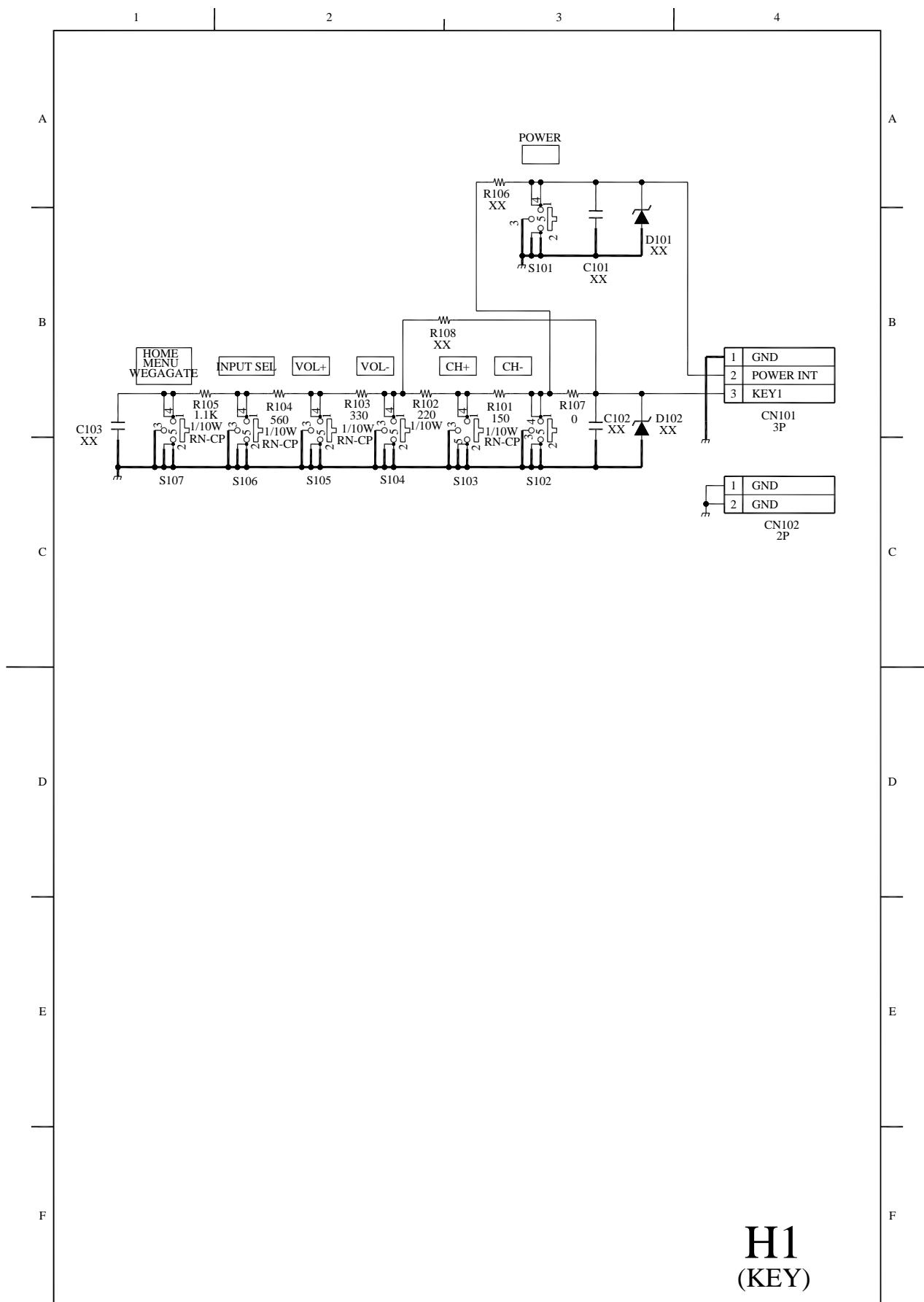
G

H

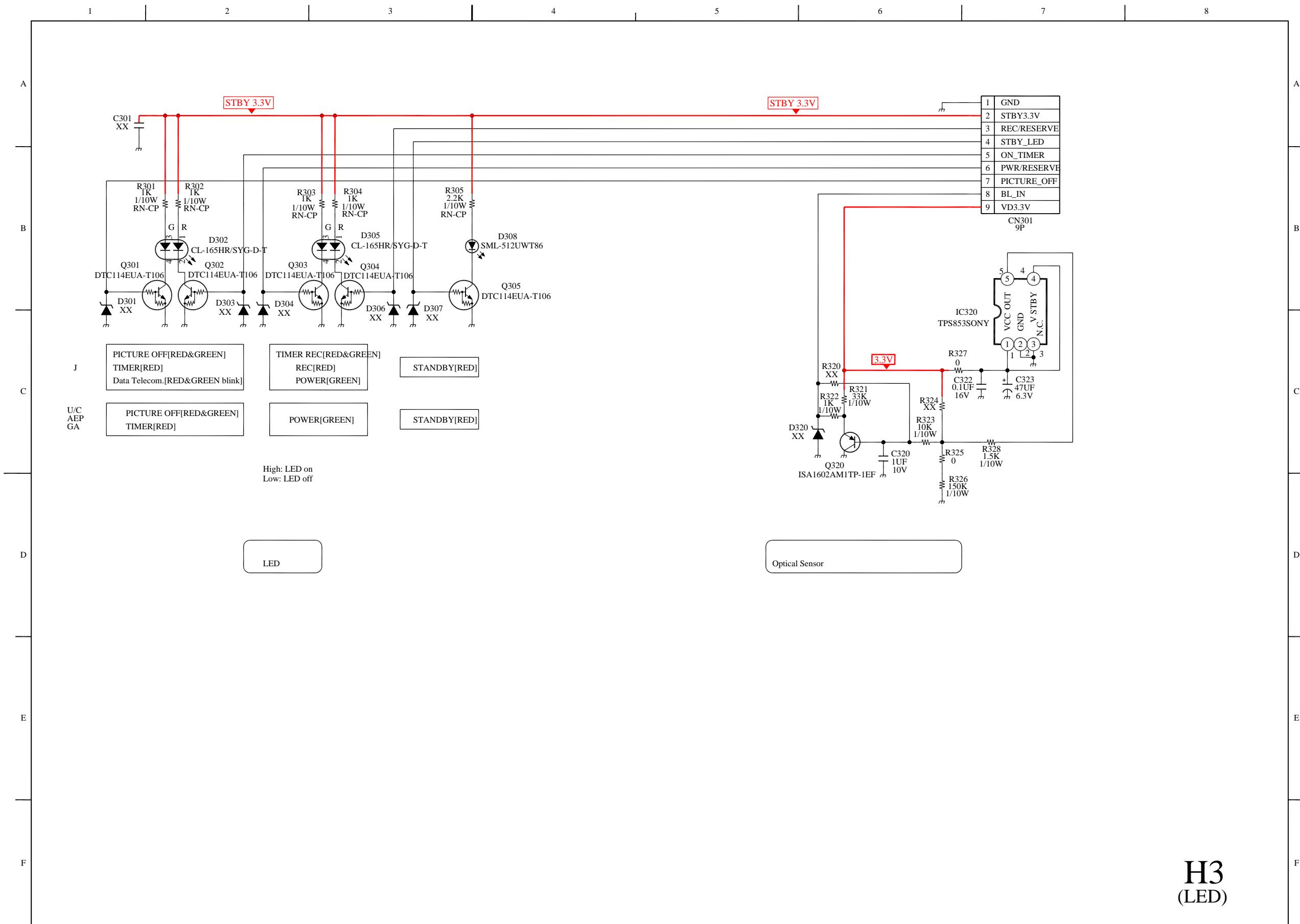
I

J

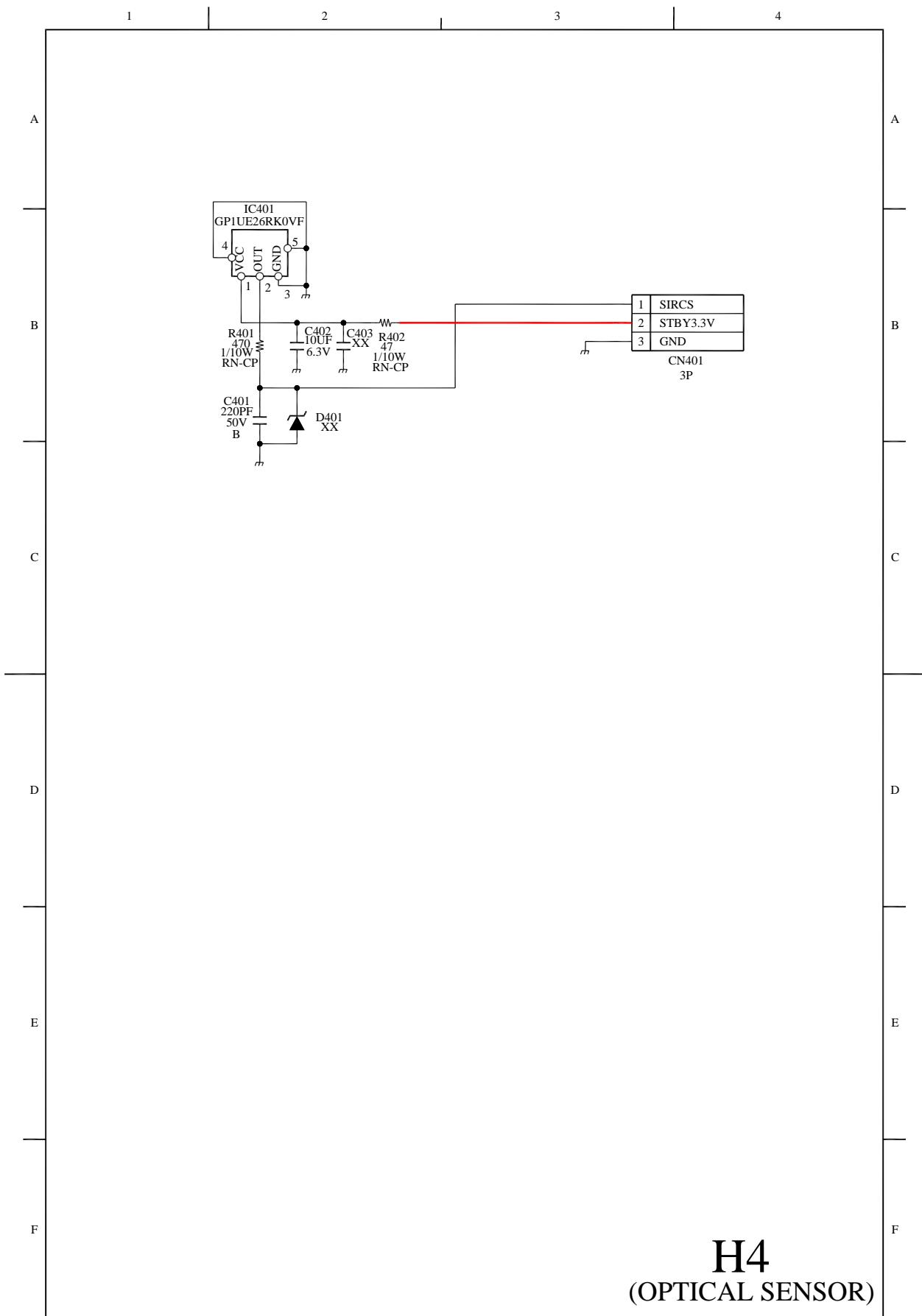
4-3-11. H1 Board Schematic Diagram



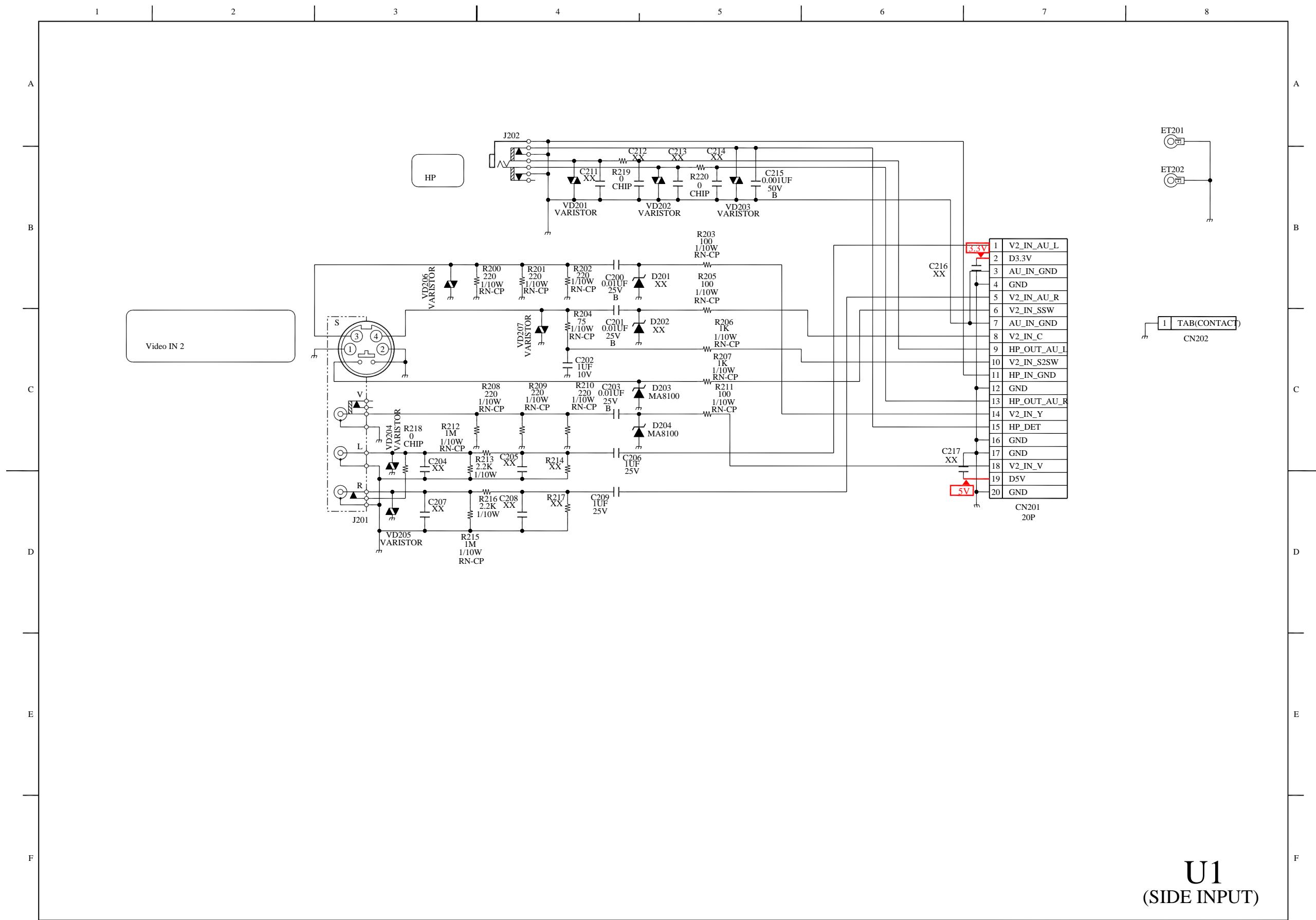
4-3-12. H3 Board Schematic Diagram



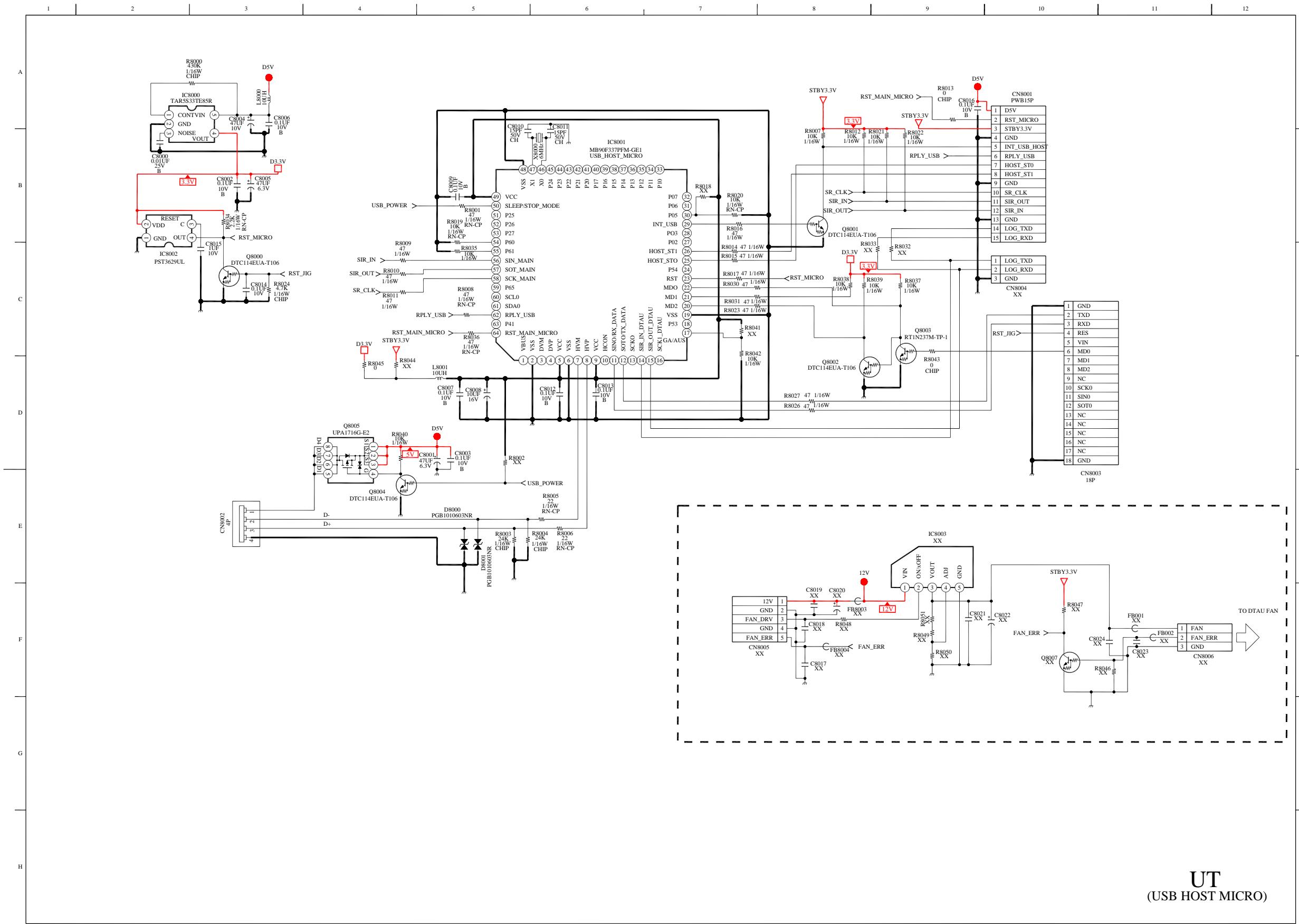
**4-3-13. H4 Board Schematic Diagram**



#### **4-3-14. U1 Board Schematic Diagram**



#### **4-3-15. UT Board Schematic Diagram**



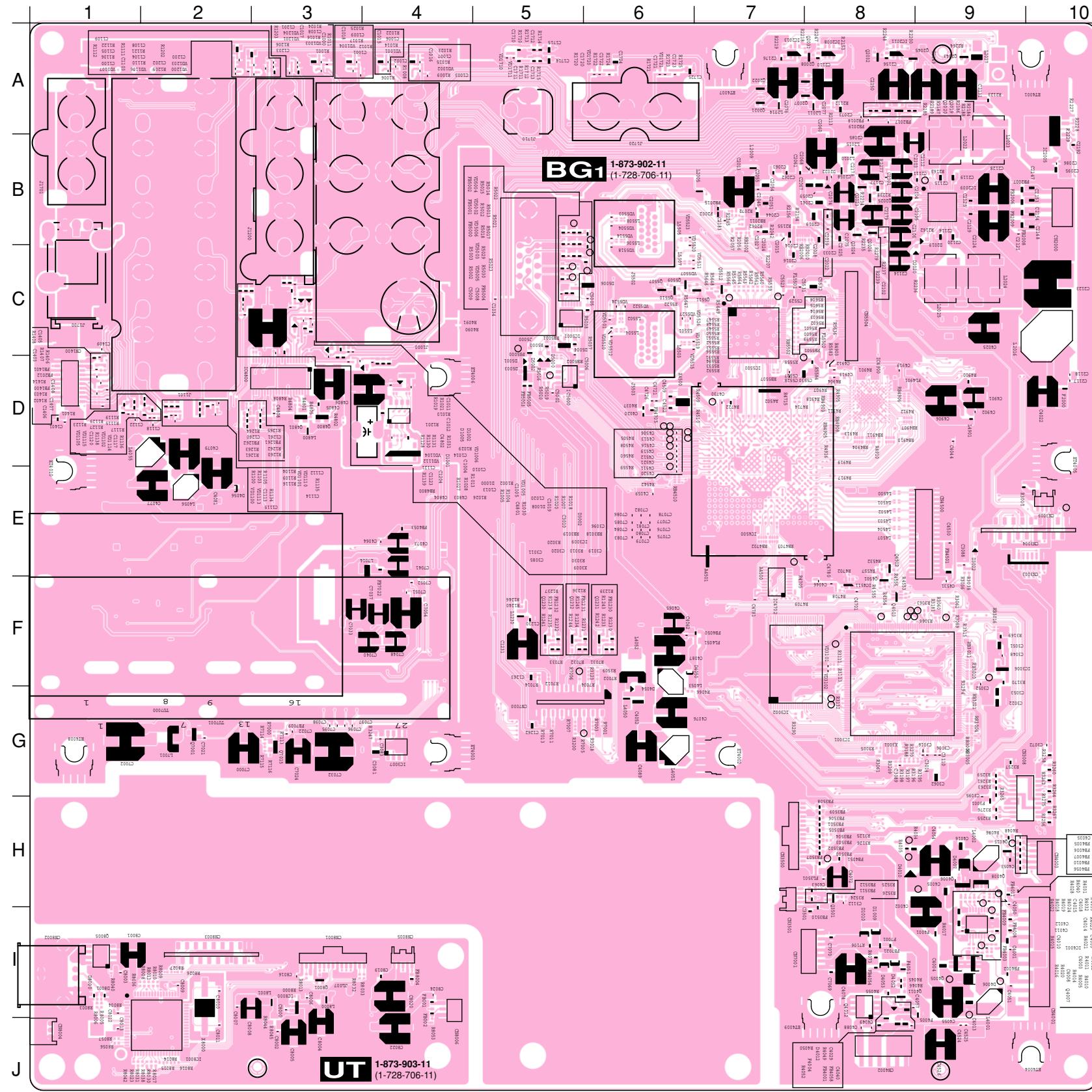
#### 4-4. VOLTAGE MEASUREMENT AND WAVEFORMS

##### □ BG1 BOARD VOLTAGE LIST AND WAVEFORMS

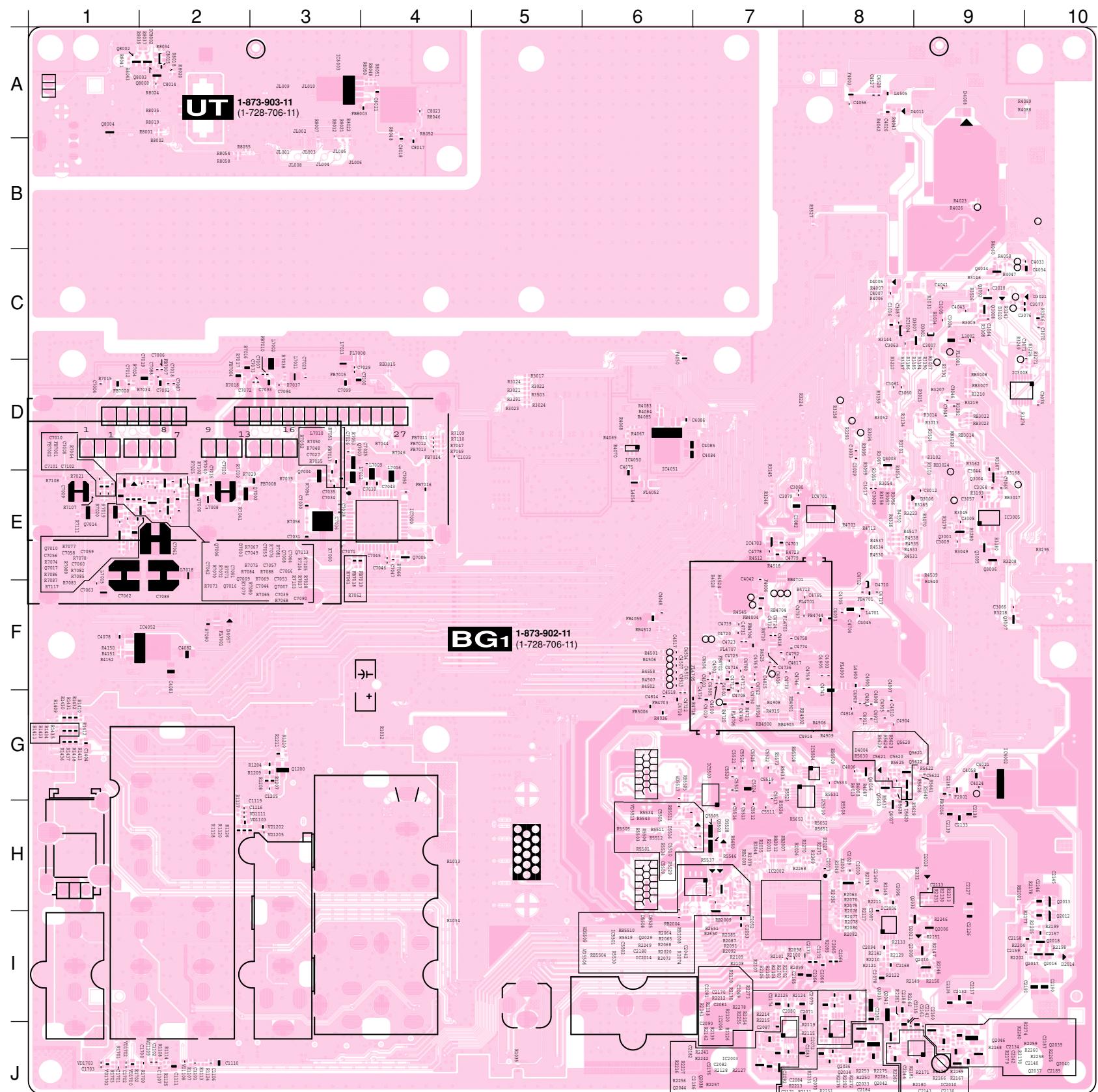
Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	
IC2005	1	16.2	IC4001	1	11.9		30	0	
	2	16.1		2	11.1		31	1.7	
	3	8.9		3	3.7		32	0.5	
	4	2.5		4	4.9		33	1.4	
	5	0		5	0.5		34	1.8	
IC2009	1	0	IC4702	6	0.5		② PAL		
	2	1.7		7	0.5		② NTSC		
	3	1.7		8	1.2				
	4	0		9	1.2				
	5	1.4		10	0.5				
	6	1.6		11	0.7				
	7	3.7		1	0				
	8	3.9		2	1.3				
	9	0		3	1.2				
	10	3.8		4	1.4				
	11	1.6		5	0				
IC3006	12	0		6	0.8		③ PAL		
	13	0		7	0.9		③ NTSC		
	14	1.0		8	0.7				
	15	3.9		9	0.5				
	16	1.2		10	0				
	17	0.1		11	0.5				
	18	11.1		12	0.8				
	19	0		13	0.7				
	20	0		14	0.8				
	21	0		15	1.1				
	22	0		16	1.2				
	23	11.1		17	1.2				
	24	0		18	1.4				
	25	0		19	0				
	26	16.2		20	3.3				
IC3007	27	16.1	IC4800	1	1.2		IC5000	1	0
	28	0		2	0			2	0
	29	0		3	1.2			3	0
	30	11.5		4	0			4	0
	31	11.5		5	2.6			5	(3.0)[2.8]
	32	0		6	4.6			6	(3.0)[2.8]
	33	0		7	1.2			7	0.6
	34	16.2		8	2.6			8	2.8
	35	16.2		9	4.7				
	36	0		10	0				
	37	0		11	4.7				
IC3009	38	4.1		12	4.7				
	39	0		13	1.2				
	40	0		14	0				
	41	0		15	1.2				
	42	0		16	0				
	43	11.1		17	2.5				
	44	15.6		18	4.5				
	45	16.2		19	3.1				
IC3006	46	0		20	3.1				
	47	16.2		21	1.2				
	48	16.2		22	0.2				
	1	3.2		23	1.2				
	2	0		24	0				
IC3007	3	3.2		25	2.5				
	4	0		26	4.7				
	5	1.7		27	1.7				
IC3009	1	3.2	① PAL						
	2	3.2							
	3	0							
	4	0							
	5	0							
	6	0							
	7	3.2							
	8	3.2							
IC3009	1	(3.2)[0]	① NTSC						
	2	0.4							
	3	0.2							
	4	0							
	5	3.1							
	6	3.1							
	7	3.1							
	8	3.0							

 **BG1 BOARD VOLTAGE LIST AND WAVEFORMS**

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
	14	3.3		39	4.9		64	4.7
	15	3.2		40	0		65	0
	16	0		41	0		66	0
	17	3.3		42	0		67	3.2
	18	*		43	3.2		68	3.3
	19	0		44	0		69	3.3
	20	0		45	0.4		70	3.3
	21	0		46	0.4		71	3.3
	22	3.2		47	0		72	0
	23	0.2		48	3.3		73	3.3
	24	0		49	3.2		74	3.3
	25	3.1		50	3.3		75	3.3
	26	3.0		51	3.3		76	3.3
	27	3.3		52	3.2		77	3.3
	28	3.2		53	0		78	0
	29	2.8		54	3.3		79	3.2
	30	0		55	3.3		80	0
	31	3.2		56	3.2	Q4012	1	11.9
	32	2.8		57	3.3		2	11.9
	33	3.2		58	3.2		3	11.9
	34	2.8		59	0		4	1.0
	35	3.2		60	0		5	11.9
	36	0		61	3.3		6	11.9
	37	0		62	0		7	11.9
	38	4.9		63	4.7		8	11.9

**4-5. PRINTED WIRING BOARDS****BG1** [I/O/AUDIO/MAIN µCON/VSW.TRIDENT/DDR/HDMI.PC/POWER.DC\_ALERT/TUNER.MSP]**UT** [USB HOST MICRO]**- BG1 & UT Board - (Component Side)**

## - BG1 &amp; UT Board - (Conductor Side)



**G1H** [(POWER SUPPLY) (KLV-26/32V300A)]

**G3** [(POWER SUPPLY (KLV-40/46V300A)]

**D1** [(INVERTER) (KLV-40/46V300A)]

**D2** [(INVERTER) (KLV-46V300A)]

Due to complexity of the board, performing component level field repairs is not recommended.  
If service is required, complete board replacement is required, therefore schematic are not included.  
For part number information refer to the Exploded view or Electrical Parts lists section of this manual.

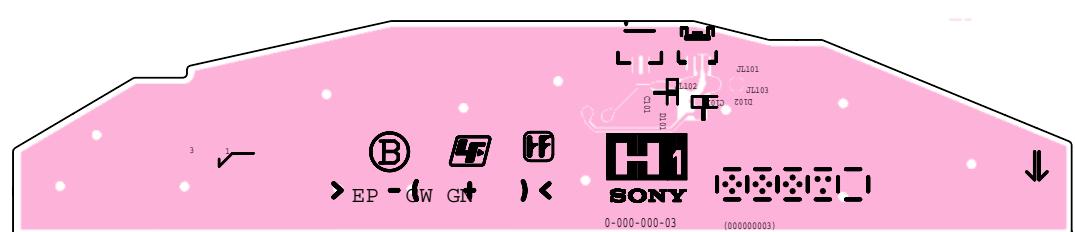
**H1** [KEY]

**H3** [LED]

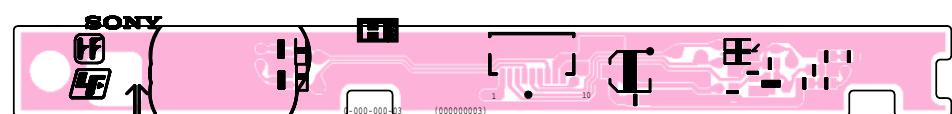
**H4** [OPTICAL SENSOR]

**U1** [SIDE INPUT]

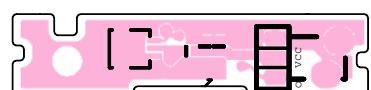
– H1 Board –



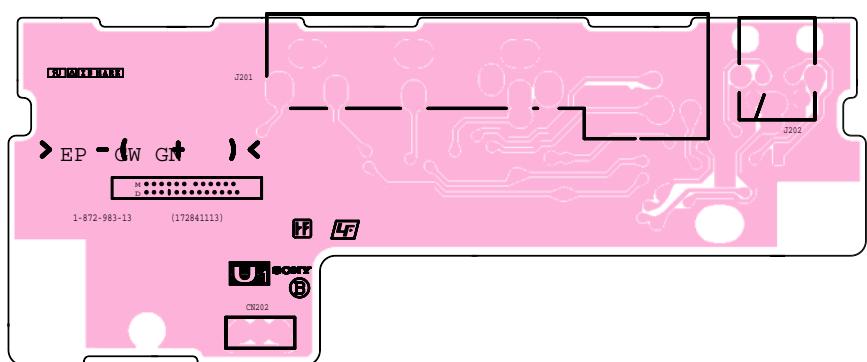
– H3 Board –



– H4 Board –



– U1 Board –



#### 4-6. SEMICONDUCTORS

##### DIODE

MA111-TX	DTZ10B MA8091-M RB501V-40TE-17 SML-512UWT86 (LED) UDZ-TE-17-6.8B	M1MA152WK-T1	1PS302	1SMA5915BT3G	CL-165HR/SYG-D-T

##### TRANSISTOR

MA2SD32008S0 MA8056 MA8100 MA8150-TX	MA2Z720001S0	PGB1010603NR	2SC3052EF-T1-LEF 2SC4081-R 2SC4154TP-1EF 2SK2036(TE85L) DTA114TUA-T106 DTC114EKA-T146	UPA1716G-E2	RSQ035P03TR SSM6N16FU

2SA1576A-T106-QR	2SC3775	DTA144EUA-T106 DTC114EUA-T106 DTC114TUA-T106	HN1B01FU-TE85R	RT1N151M-TP-1 RT1N237M-TP-1 RT1P151M-TP-1	RTQ045N03TR

##### IC

SOP  1 TOP VIEW Small Outline L-leaded Package Pin 8-98	 TOP VIEW	 1	 1	 1
NJM4558V-TE2 SN74CBTLV3245APWR	MB91305PMC-G-BNDE1	S-1132B18-M5T1G	PST3629UL	ADT75ARZ-REEL

IC

BD9853AFV-E2	BH7641FV-E2		BR24L02F-WE2	CXD9890Q	M24256-BWMN6TP(A) M24C02-WMN6T(B)

GP1UE26RK0VF		MB90F337PFM-GE1	MM1662FTRE	MSP3417G-QG-B8V3	NJM3414AV(TE2)

PCA9517DP.118	PQ070XNA1ZPH PQ200WNA1ZPH	PQ6CU12X2APQ	RT8H225C-TP-2	S-35390A-J8T1G	TC74LCX14FT(EKJ) TC74VHC132FT(EKJ)

TAR5S33 (TE85R)	TC7SH86FU(T5RSOYJF)	TC7SZ32FU(TE85R)	TPA3100D2PHPR	TPS853(SONY)

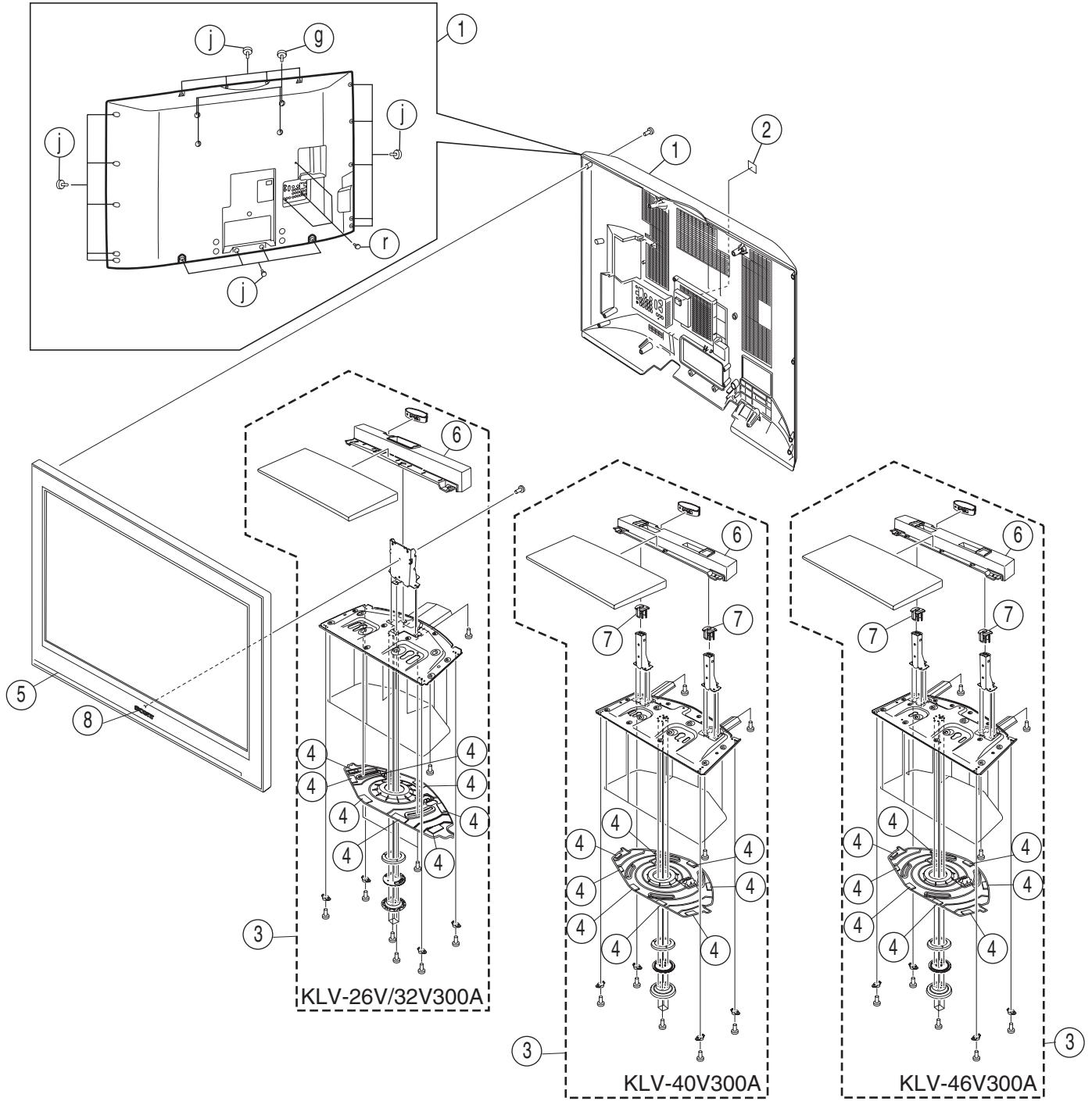
## SECTION 5 EXPLODED VIEWS

- Components not identified by a part number or description are stocked because they are seldom required for routine service.
- The component parts of an assembly are indicated by the reference numbers in the far right column of the part list and within the dotted lines of the diagram.
- \* Items marked with an asterisk are not stocked since they are seldom required for routine service. Except some delay when ordering these components.

NOTE: The components identified by shading and  $\triangle$  mark are critical for safety. Replace only with part number specified.

Note: The components identified by mark  $\square$  contain confidential information. Strictly follow the instructions whenever the components are repaired and /or replaced.

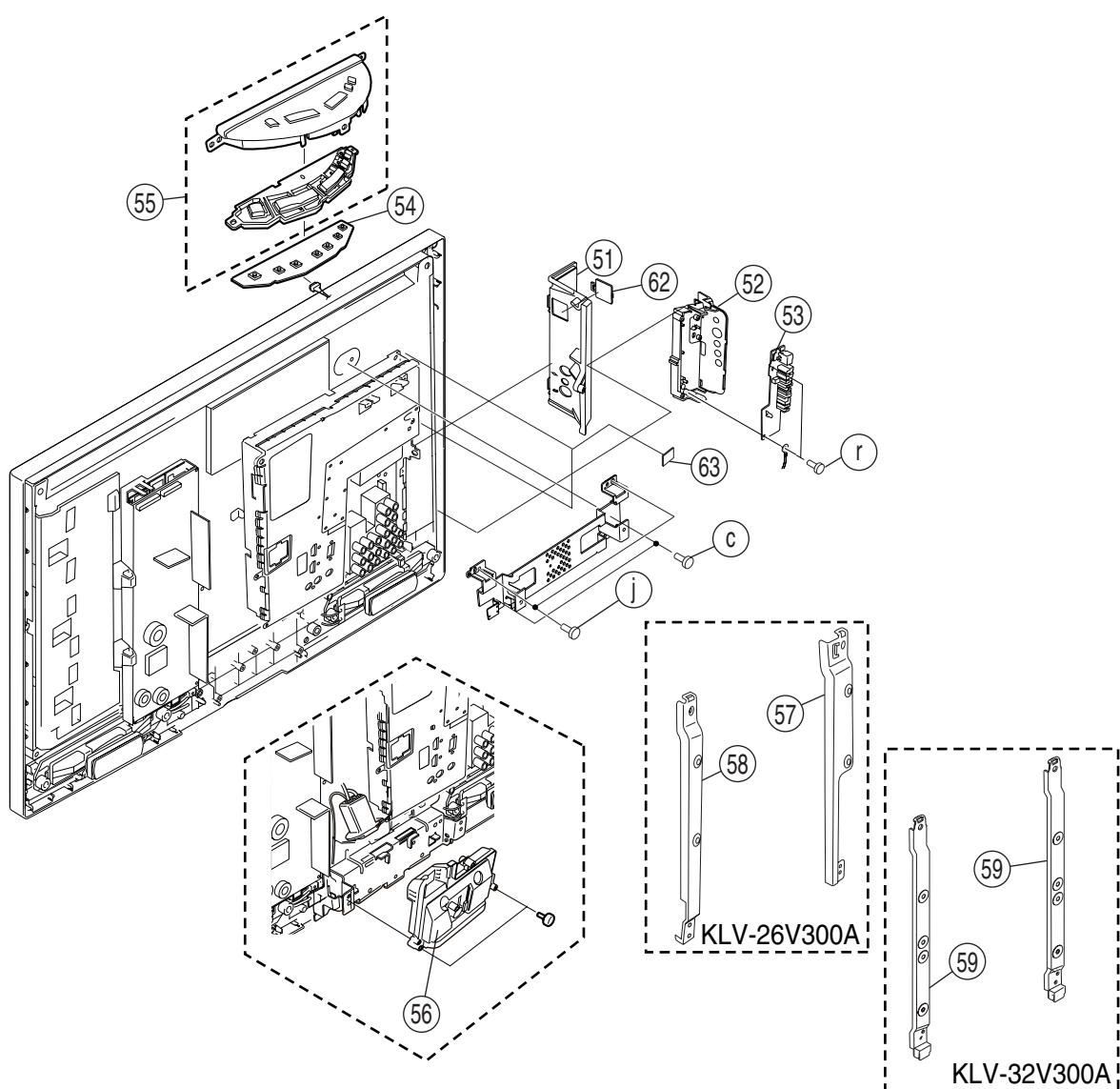
### 5-1. REAR CABINET AND STAND ASSY



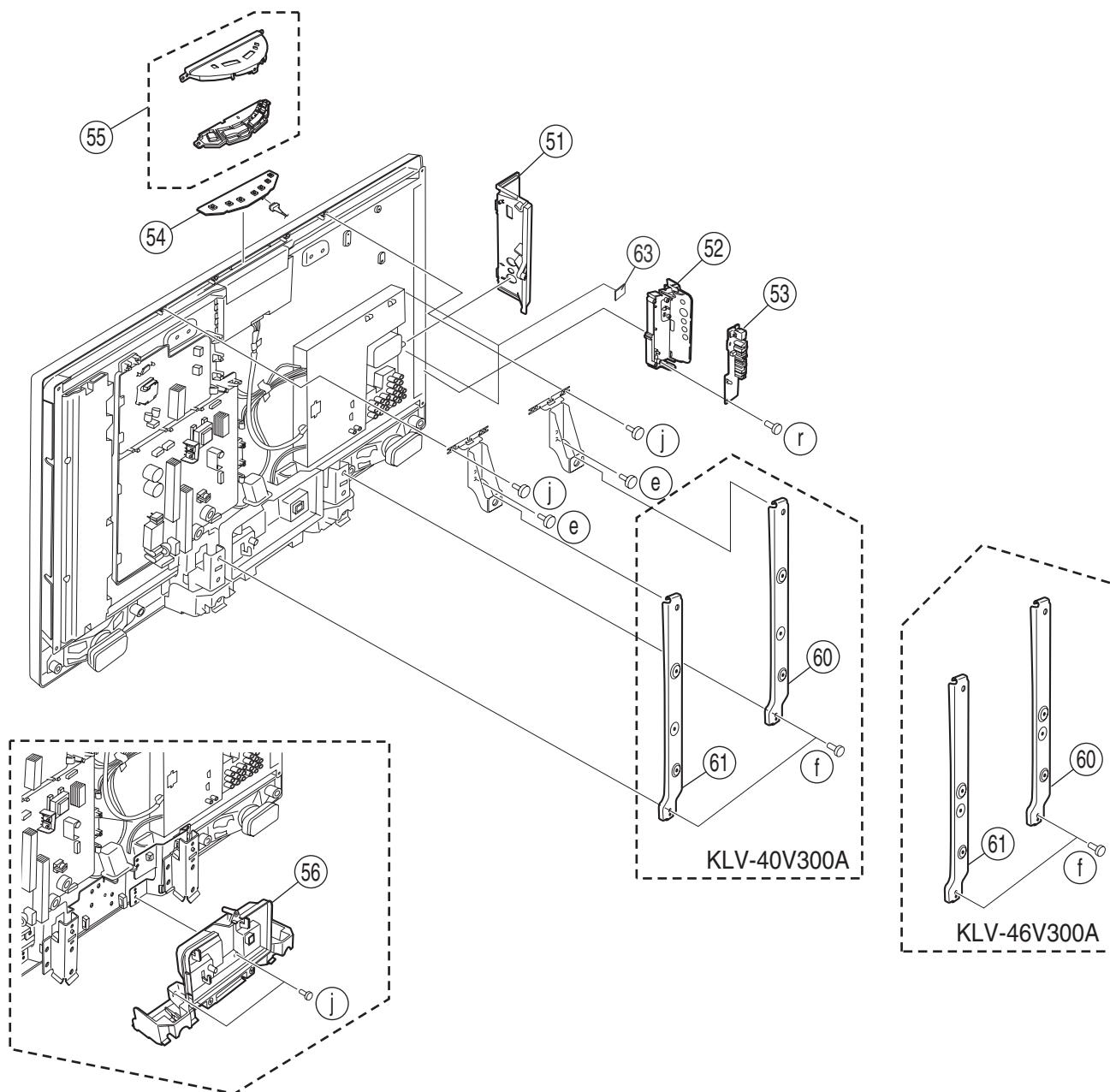
<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
1	X-2179-346-1 X-2178-163-1 X-2178-208-1 X-2178-185-1	COVER (26V), REAR ASSY (KLV-26V300A) COVER (32V), REAR ASSY (KLV-32V300A) COVER, REAR(40V) ASSY (KLV-40V300A) COVER, REAR(46V) ASSY (KLV-46V300A)	
2	* 3-106-086-01	COVER, ECS	
3	X-2176-635-1 X-2176-636-1 X-2176-637-1	STAND (M_WS) ASSY (KLV-26/32V300A) STAND (ML_WS) ASSY (KLV-40V300A) STAND (L_WS) ASSY (KLV-46V300A)	
4	3-094-362-01	FOOT (15X30)	
5	3-094-449-01	ORNAMENTAL PANEL(40S) (KLV-40V300A)	
6	3-094-356-03 3-094-385-02 3-094-406-02	COVER, NECK (M) (KLV-26/32V300A) COVER, NECK (ML) (KLV-40V300A) COVER, NECK (L) (KLV-46V300A)	
7	3-095-049-01	CAP, END (KLV-40/46V300A)	
8	4-103-642-21	EMBLEM, SONY NO.8 (KLV-26/32V300A)	
d	2-580-602-01	SCREW, +PSW M4X12	
e	2-580-606-01	SCREW, +PSW M5X8	
g	2-580-608-01	SCREW, +PSW M5X16	
j	2-580-640-01	SCREW, +BVTP2 4X16	
k	2-580-644-01	SCREW, +KTP2 3X8	
q	3-097-433-01	SCREW, SPECIAL HEAD M4X8	
r	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	

## 5-2. FRAME AND COVER

### 5-2-1. KLV-26/32V300A



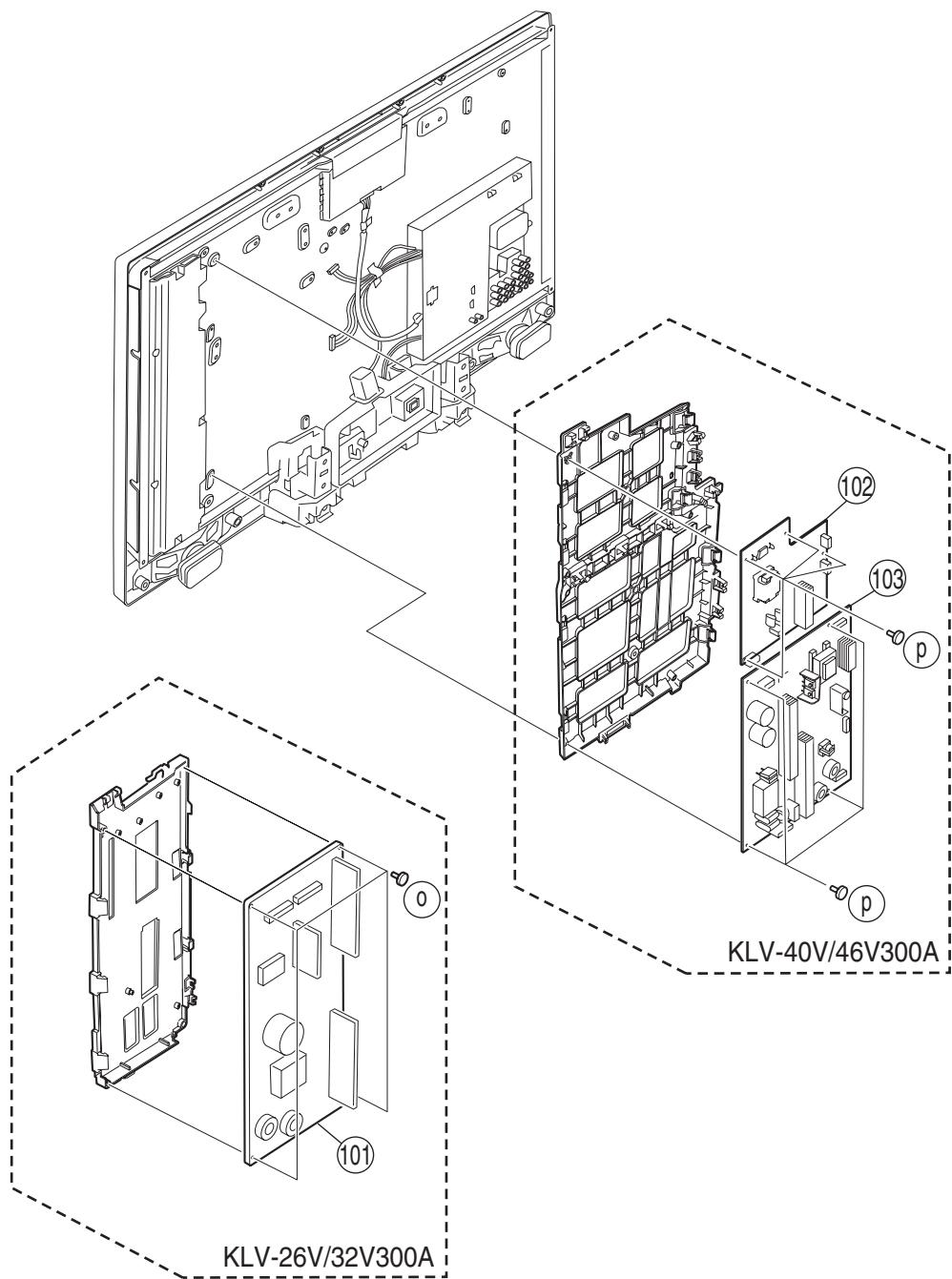
**5-2-2. KLV-40/46V300A**



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* 3-098-469-01	SIDE, TERMINAL(AG)	
52	* 3-106-084-01	HOLDER, SIDE JACK(S) (KLV-26V300A)	
	3-217-630-01	HOLDER, SIDE JACK(M) (KLV-32/40V300A)	
	* 3-106-085-01	HOLDER, SIDE JACK(L) (KLV-46V300A)	
53	A-1220-504-C	U1 MOUNT	
54	A-1220-318-A	H1 MOUNT	
55	X-2177-959-1	BUTTON, MULTI ASSY	
56	3-106-082-01	COVER, UNDER(M) (KLV-26/32V300A)	
	3-106-083-01	COVER, UNDER(L) (KLV-40/46V300A)	
57	* X-2177-963-1	VESA ARM(26)L ASSY (KLV-26V300A)	
58	* X-2177-964-1	VESA ARM(26)R ASSY (KLV-26V300A)	
59	* X-2177-977-1	VESA ARM(32) ASSY (KLV-32V300A)	
60	* X-2177-957-1	VESA ARM(40)L ASSY (KLV-40V300A)	
	* X-2179-213-1	VESA ARM(46)L ASSY (KLV-46V300A)	

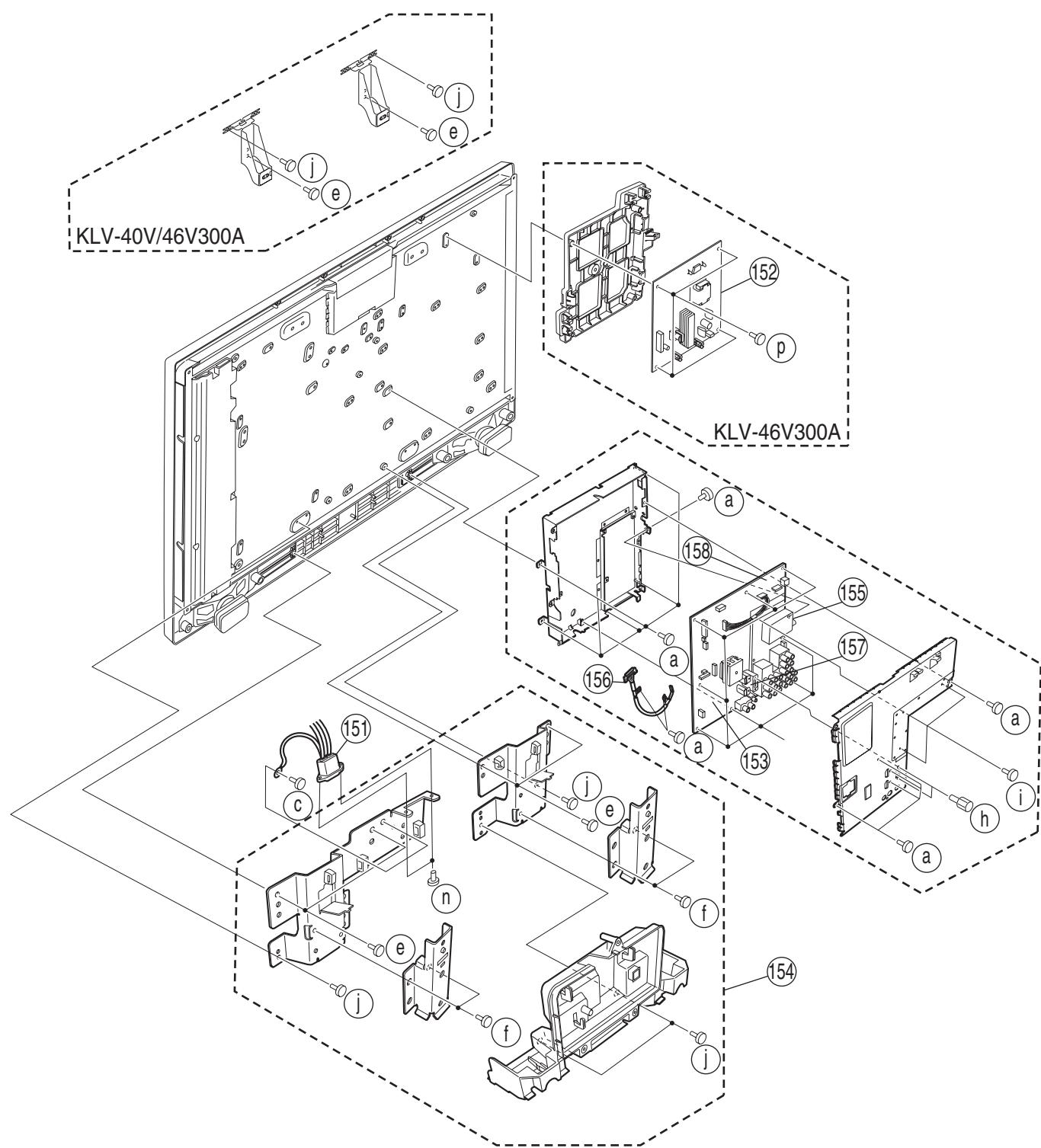
REF. NO.	PART NO.	DESCRIPTION	REMARK
61	* X-2177-958-1	VESA ARM(40)R ASSY (KLV-40V300A)	
	* X-2179-214-1	VESA ARM(46)R ASSY (KLV-46V300A)	
62	2-697-510-04	COVER, MS/USB	
63	4-092-814-02	CUSHION D (Except KLV-26V300A)	
e	2-580-606-01	SCREW, +PSW M5X8	
f	2-580-607-01	SCREW, +PSW M5X12 (KLV-40/46V300A)	
j	2-580-640-01	SCREW, +BVTP2 4X16	
r	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	

**5-3. CHASSIS-1**



REF. NO.	PART NO.	DESCRIPTION	REMARK
101	A-1289-454-A A-1289-455-A	G1H 26 COMPLETE (KLV-26V300A) G1H 32 COMPLETE (KLV-32V300A)	
102	A-1236-528-A A-1236-531-A	D1 40 COMPLETE (KLV-40V300A) D1 46 COMPLETE (KLV-46V300A)	
103	A-1314-501-A	G3 COMPLETE (KLV-40/46V300A)	
o	2-674-965-31	SCREW, +PSW 3SG (KLV-26/32V300A)	
p	2-674-965-41	SCREW, +PSW 3SG (KLV-40/46V300A)	

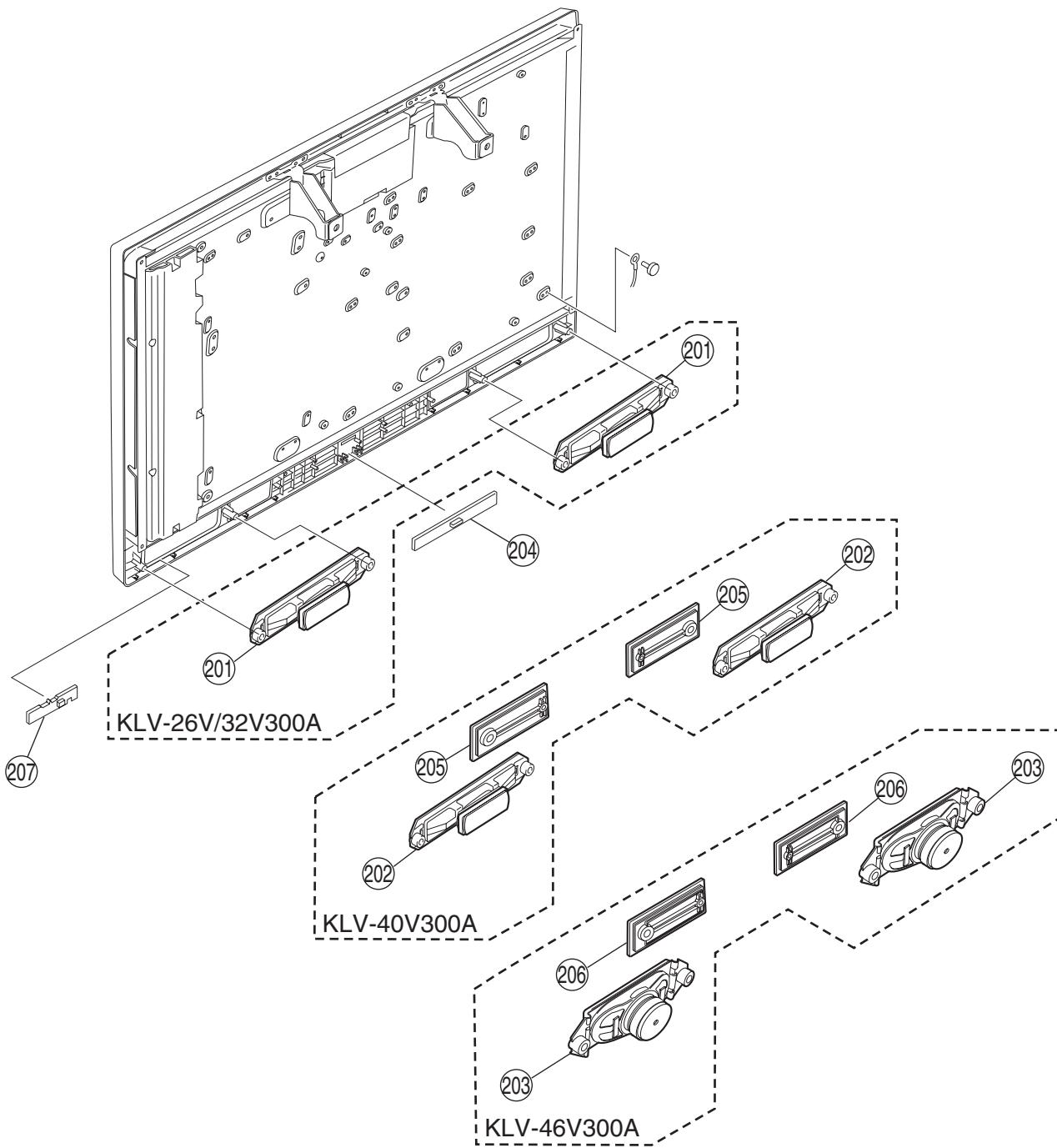
5-4. CHASSIS-2



<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
151	▲ 1-821-380-11 ▲ 1-819-729-14	INLET, AC (WITH NOISE FILTER) (KLV-26V300A) INLET, AC (WITH NOISE FILTER) (Except KLV-26V300A)	
152	A-1247-497-A	D2 COMPLETE (KLV-46V300A)	
153	■ A-1271-130-A ■ A-1271-129-A ■ A-1257-032-A ■ A-1271-128-A	BG1 MOUNT (SERVICE) (KLV-26V300A) BG1 MOUNT (SERVICE) (KLV-32V300A) BG1 MOUNT (SERVICE) (KLV-40V300A) BG1 MOUNT (SERVICE) (KLV-46V300A)	
154	3-106-082-01 3-106-083-01	COVER, UNDER(M) (KLV-26/32V300A) COVER, UNDER(L) (KLV-40/46V300A)	
155	8-597-615-00	TUNER, FSS BTF-BG421Z	
156	1-834-155-11 1-834-157-11 1-834-158-21 1-834-159-21	HARNESS WITH CONNECTOR (LVDS) (KLV-26V300A) HARNESS WITH CONNECTOR (LVDS) (KLV-32V300A) HARNESS WITH CONNECTOR (LVDS) (KLV-40V300A) HARNESS WITH CONNECTOR (LVDS) (KLV-46V300A)	
157	1-831-554-11	CABLE ASSY (15P DSUB CONNECTOR)	
158	* A-1313-723-A	UT COMPLETE	
a	2-580-591-01	SCREW, +PSW M3X5	
c	2-580-600-01	SCREW, +PSW M4X8	
e	2-580-606-01	SCREW, +PSW M5X8	
f	2-580-607-01	SCREW, +PSW M5X12 (KLV-40/46V300A)	
h	2-580-626-01	SCREW, SP 4-40 UNC	
i	2-580-629-01	SCREW, +BVST 3X8	
j	2-580-640-01	SCREW, +BVTP2 4X16	
p	2-674-965-41	SCREW, +PSW 3SG (KLV-46V300A)	
n	2-596-649-01	+KTT 3X10 (S TYPE)	
s	7-685-872-09	SCREW +BVTT 3X8 (S) (KLV-46V300A)	

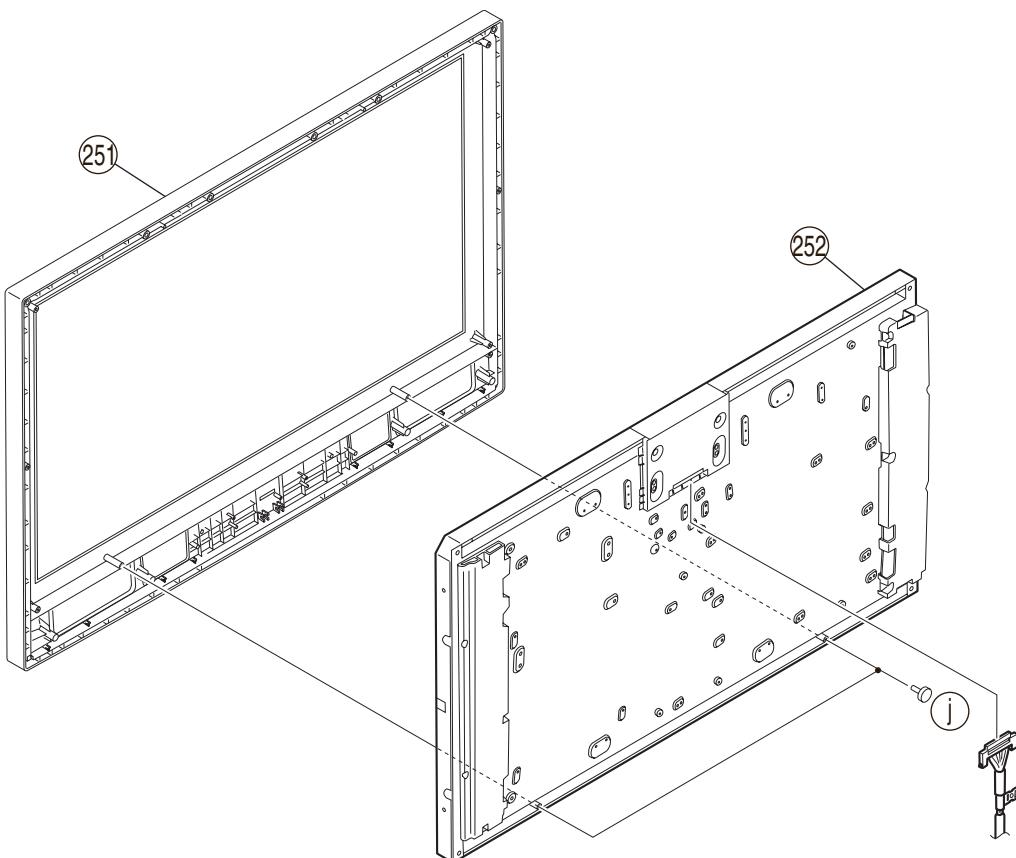
Note: The components identified by mark ■ contain confidential information. Strictly follow the instructions whenever the components are repaired and /or replaced.

## 5-5. H3, H4 BOARDS AND SPEAKER



REF. NO.	PART NO.	DESCRIPTION	REMARK
201	1-826-649-11 1-826-648-11	LOUD SPEAKER (4.2X15CM) (KLV-26V300A) LOUD SPEAKER (4.2X15CM) (KLV-32V300A)	
202	1-826-647-11	LOUD SPEAKER (5.5X15.5CM) (KLV-40V300A)	
203	1-826-646-11	LOUD SPEAKER (13X7CM) (KLV-46V300A)	
204	A-1220-319-A	H3 MOUNT	
205	X-2176-950-1	BAFFLE (40J) ASSY	
206	X-2176-951-1	BAFFLE (46J) ASSY	
207	A-1220-320-A	H4 MOUNT	

## 5-6. BEZEL ASSY AND LCD PANEL

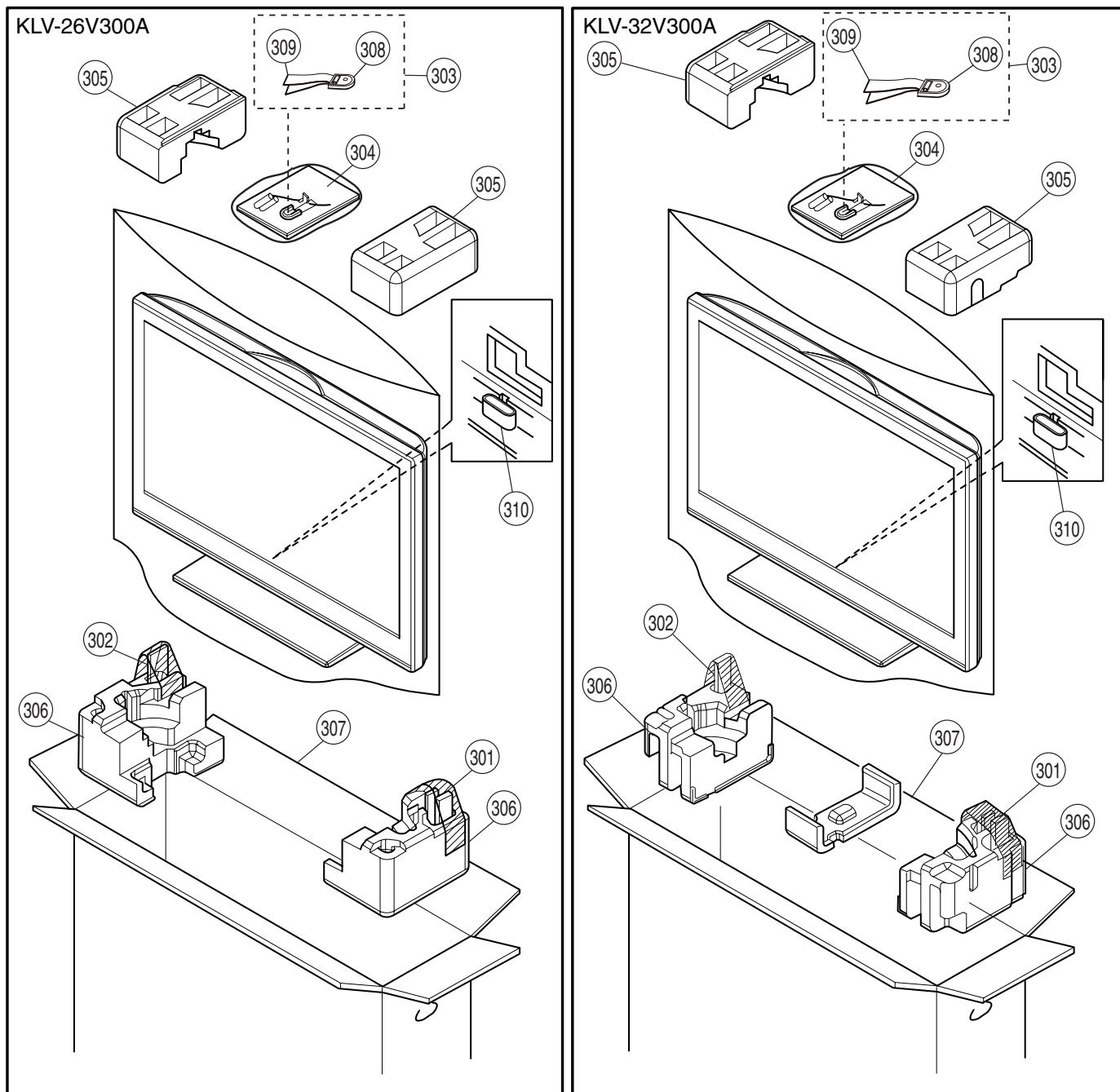


REF. NO.	PART NO.	DESCRIPTION	REMARK
251	X-2177-962-1	BEZEL (26SG) ASSY (KLV-26V300A)	
	X-2177-976-1	BEZEL (32SG) ASSY (KLV-32V300A)	
	X-2177-956-1	BEZEL (40SG) ASSY (KLV-40V300A)	
	X-2177-973-1	BEZEL(46SG) ASSY (KLV-46V300A)	
252	△ 1-802-368-12	LCD PANEL (26INCH WXGA TFT) (KLV-26V300A)	
	△ 1-802-380-12	LCD PANEL (32INCH WXGA TFT) (KLV-32V300A)	
	△ 1-802-410-11	LCD PANEL (40INCH WXGA TFT) (KLV-40V300A)	
	△ 1-802-409-11	LCD PANEL (46INCH WXGA TFT) (KLV-46V300A)	
	△ 1-802-409-21	LCD PANEL (46INCH WXGA TFT) (KLV-46V300A)	

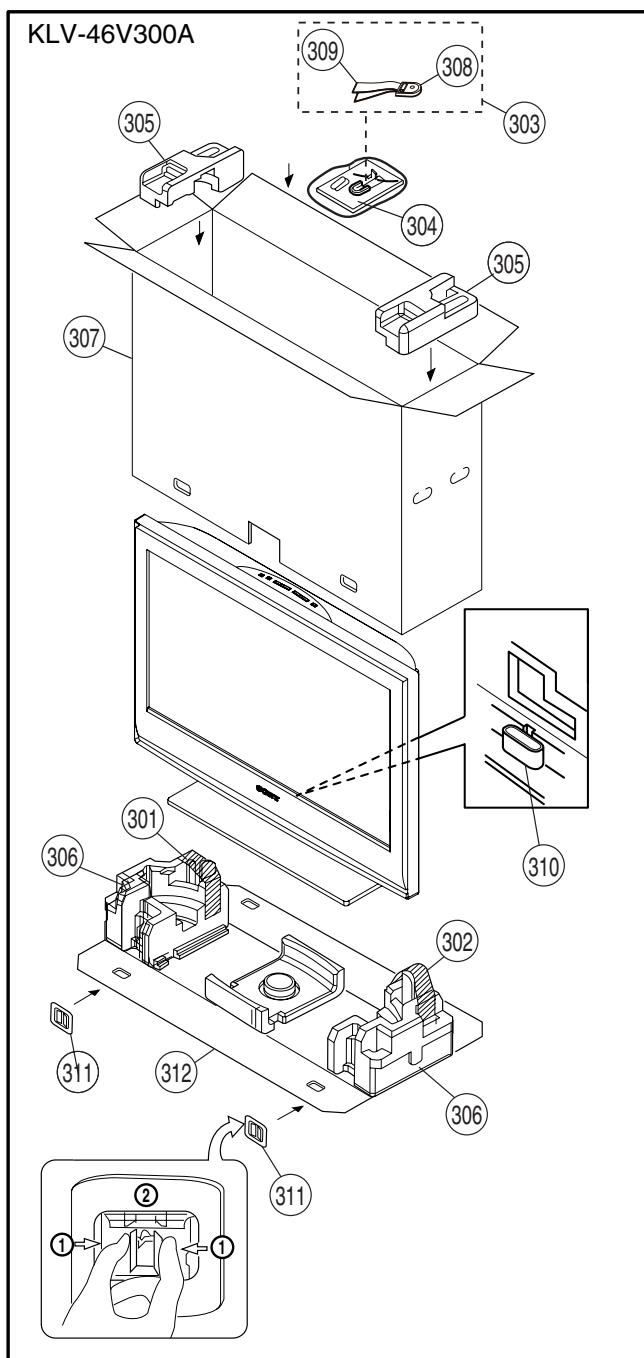
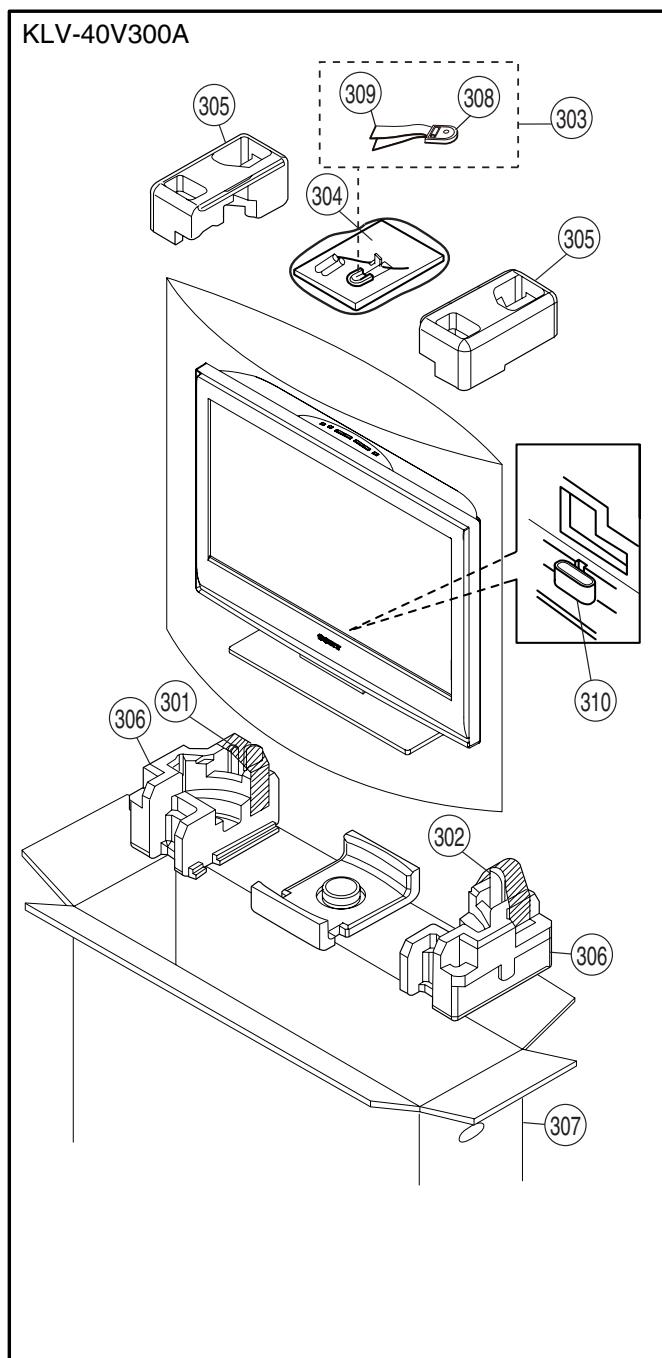
j 2-580-640-01 SCREW, +BVTP2 4X16

## 5-7. ACCESSORIES AND PACKING MATERIALS

### 5-7-1. KLV-26/32V300A



5-7-2. KLV-40/46V300A



<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>	<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
301	▲ 1-833-118-11	POWER-SUPPLY CORD SET (KLV-26/32/46V300A(E/ME/SA))		306	* 3-094-966-01	CUSHION, LOWER (KLV-26V300A)	
	▲ 1-830-611-11	POWER-SUPPLY CORD SET (KLV-26/32/46V300A(ME))			* 3-094-969-01	CUSHION, LOWER (KLV-32V300A)	
	▲ 1-833-117-11	POWER-SUPPLY CORD SET (KLV-26/32V300A(OCE))			* 3-094-972-01	CUSHION, LOWER (KLV-40V300A)	
	▲ 1-832-937-11	POWER-SUPPLY CORD SET (KLV-26/32/46V300A(SA))			* 3-094-975-01	CUSHION, LOWER (KLV-46V300A)	
	▲ 1-834-176-11	POWER-SUPPLY CORD SET (KLV-40V300A(E/ME/SA))		307	* 3-094-968-01	INDIVIDUAL CARTON	
	▲ 1-834-176-21	POWER-SUPPLY CORD SET (KLV-40V300A(OCE))			* 3-094-971-01	INDIVIDUAL CARTON	
	▲ 1-834-220-11	POWER-SUPPLY CORD SET (KLV-46V300A(OCE))			* 3-094-974-01	INDIVIDUAL CARTON	
302	1-480-251-11	REMOTE COMMANDER (RM-GA008)			* 3-094-977-01	INDIVIDUAL CARTON	
	9-885-110-80	BATTERY COVER REMOTE COMMANDER		308	X-2055-089-2	LOCK ASSY, RUDDER	
303	* X-2102-511-2	BAG ASSY, RUDDER LOCK		309	2-591-689-01	BELT	
304	3-198-185-11	MANUAL, INSTRUCTION		310	2-595-155-02	CLAMP	
	3-198-185-21	MANUAL, INSTRUCTION (KLV-26/32/40/46V300A(E/ME))		311	* 2-639-807-01	JOINT (KLV-46V300A)	
	3-198-185-31	MANUAL, INSTRUCTION (KLV-26/32/40/46V300A(ME/SA))		312	* 3-094-978-01	TRAY (KLV-46V300A)	
	3-198-185-41	MANUAL, INSTRUCTION (KLV-26/32/40/46V300A(ME))		l	2-580-663-01	SCREW, WOOD 3.8X20	
305	* 3-094-967-01	CUSHION, UPPER (KLV-26V300A)		m	2-593-320-02	SCREW, CION (M6X18)	
	* 3-094-970-01	CUSHION, UPPER (KLV-32V300A)					
	* 3-094-973-01	CUSHION, UPPER (KLV-40V300A)					
	* 3-094-976-01	CUSHION, UPPER (KLV-46V300A)					

## SECTION 6

### ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

The components identified by mark  $\square$  contain confidential information. Strictly follow the instructions whenever the components are repaired and /or replaced.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- All resistors are in ohms
- F : nonflammable

## CAPACITORS

- MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

## COILS

- MMH : mH, UH :  $\mu\text{H}$

REF NO.	PART NO.	DESCRIPTION	REMARK			REF NO.	PART NO.	DESCRIPTION	REMARK		
	A-1271-130-A	BG1 MOUNT (SERVICE) (KLV-26V300A)	C2053	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V			
	A-1271-129-A	BG1 MOUNT (SERVICE) (KLV-32V300A)	C2054	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V			
	A-1257-032-A	BG1 MOUNT (SERVICE) (KLV-40V300A)	C2055	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V			
	A-1271-128-A	BG1 MOUNT (SERVICE) (KLV-46V300A)	C2058	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V			
		*****	C2059	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V			
	2-586-175-11	SHEET B, RADIATION	C2060	1-126-392-11	ELECT CHIP	100UF	20.00%	6.3V			
			C2061	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
A4500	4-098-157-11	HEAT SINK (DTT)	C2062	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
A4501	1-694-974-21	CONTACT TERMINAL	C2063	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
A4502	1-694-974-21	CONTACT TERMINAL	C2064	1-112-781-11	CERAMIC CHIP	1UF	10%	10V			
		<CAPACITOR>	C2065	1-112-781-11	CERAMIC CHIP	1UF	10%	10V			
C1004	1-112-781-11	CERAMIC CHIP	C2066	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V			
C1012	1-112-777-11	CERAMIC CHIP	C2067	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V			
C1013	1-112-777-11	CERAMIC CHIP	C2068	1-114-330-11	CERAMIC CHIP	2.2UF	10%	10V			
C1014	1-112-777-11	CERAMIC CHIP	C2069	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C1015	1-100-912-11	CERAMIC CHIP	C2070	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C1016	1-100-912-11	CERAMIC CHIP	C2071	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C1017	1-100-912-11	CERAMIC CHIP	C2072	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C1018	1-100-912-11	CERAMIC CHIP	C2073	1-114-330-11	CERAMIC CHIP	2.2UF	10%	16V			
C1019	1-100-912-11	CERAMIC CHIP	C2074	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C1020	1-112-777-11	CERAMIC CHIP	C2075	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C1021	1-100-912-11	CERAMIC CHIP	C2076	1-126-396-11	ELECT CHIP	47UF	20.00%	16V			
C1022	1-100-912-11	CERAMIC CHIP	C2077	1-126-396-11	ELECT CHIP	47UF	20.00%	16V			
C1109	1-100-912-11	CERAMIC CHIP	C2078	1-114-330-11	CERAMIC CHIP	2.2UF	10%	16V			
C1110	1-100-912-11	CERAMIC CHIP	C2079	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C1111	1-100-912-11	CERAMIC CHIP	C2080	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V			
C1204	1-128-396-11	ELECT CHIP	C2081	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V			
C1403	1-100-905-11	CERAMIC CHIP	C2082	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V			
C1714	1-100-912-11	CERAMIC CHIP	C2083	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C1715	1-100-912-11	CERAMIC CHIP	C2084	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V			
C1722	1-100-905-11	CERAMIC CHIP	C2085	1-126-396-11	ELECT CHIP	47UF	20.00%	16V			
C1723	1-100-905-11	CERAMIC CHIP	C2086	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V			
C1724	1-100-912-11	CERAMIC CHIP	C2087	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C1725	1-100-912-11	CERAMIC CHIP	C2088	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2013	1-126-392-11	ELECT CHIP	C2089	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C2014	1-100-905-11	CERAMIC CHIP	C2090	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V			
C2016	1-112-046-11	CERAMIC CHIP	C2091	1-162-959-11	CERAMIC CHIP	100PF	5.00%	50V			
C2017	1-100-905-11	CERAMIC CHIP	C2092	1-100-912-11	CERAMIC CHIP	1UF	10%	25V			
C2019	1-100-911-11	CERAMIC CHIP	C2093	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V			
C2022	1-100-905-11	CERAMIC CHIP	C2094	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2025	1-112-046-11	CERAMIC CHIP	C2095	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V			
C2027	1-100-905-11	CERAMIC CHIP	C2096	1-162-927-11	CERAMIC CHIP	4.7UF	20%	25V			
C2029	1-164-849-11	CERAMIC CHIP	C2097	1-114-325-11	CERAMIC CHIP	4.7UF	20%	25V			
C2030	1-164-849-11	CERAMIC CHIP	C2098	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V			
C2033	1-114-325-11	CERAMIC CHIP	C2099	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2039	1-100-905-11	CERAMIC CHIP	C2100	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2041	1-100-911-11	CERAMIC CHIP	C2101	1-100-905-11	CERAMIC CHIP	0.1UF	10%	25V			
C2042	1-100-905-11	CERAMIC CHIP	C2102	1-100-905-11	CERAMIC CHIP	0.1UF	10%	25V			
C2045	1-100-905-11	CERAMIC CHIP	C2103	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2051	1-112-046-11	CERAMIC CHIP	C2104	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2052	1-162-959-11	CERAMIC CHIP	C2105	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2053	1-114-325-11	CERAMIC CHIP	C2106	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2059	1-100-905-11	CERAMIC CHIP	C2107	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2061	1-100-911-11	CERAMIC CHIP	C2108	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2063	1-100-905-11	CERAMIC CHIP	C2109	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2065	1-100-905-11	CERAMIC CHIP	C2110	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2067	1-112-046-11	CERAMIC CHIP	C2111	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V			
C2069	1-100-905-11	CERAMIC CHIP	C2112	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2071	1-100-905-11	CERAMIC CHIP	C2113	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V			
C2073	1-112-046-11	CERAMIC CHIP	C2114	1-100-764-21	ELECT CHIP	4.7UF	20%	25V			
C2075	1-162-959-11	CERAMIC CHIP	C2115	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V			

**BG1**

The components identified by mark contain confidential information. Strictly follow the instructions whenever the components are repaired and /or replaced.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

REF NO.	PART NO.	DESCRIPTION	REMARK			REF NO.	PART NO.	DESCRIPTION	REMARK		
C2116	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3007	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C2117	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C3010	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C2118	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C3011	1-117-681-11	ELECT CHIP	100UF	20.00%	16V
C2119	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3012	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2120	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3014	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C2121	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C3015	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2123	1-112-797-11	ELECT CHIP	470UF	20%	25V	C3016	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C2124	1-112-800-11	ELECT CHIP	100UF	20%	35V	C3017	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2125	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C3019	1-162-911-11	CERAMIC CHIP	6PF	0.50PF	50V
C2126	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C3022	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2127	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C3024	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2128	1-112-800-11	ELECT CHIP	100UF	20%	35V	C3029	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2129	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C3033	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2130	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C3036	1-112-781-11	CERAMIC CHIP	1UF	10%	10V
C2131	1-126-396-11	ELECT CHIP	47UF	20.00%	16V	C3044	1-112-781-11	CERAMIC CHIP	1UF	10%	10V
C2132	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3046	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2133	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3048	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2134	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C3049	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2135	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C3051	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2136	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3052	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2137	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3053	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2138	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3057	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2139	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C3060	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2140	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C3061	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2141	1-114-330-11	CERAMIC CHIP	2.2UF	10%	16V	C3062	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2142	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C3063	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2143	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C3066	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2144	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C3070	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C2145	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C3071	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C2146	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C3072	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2149	1-126-396-11	ELECT CHIP	47UF	20.00%	16V	C3074	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2150	1-126-396-11	ELECT CHIP	47UF	20.00%	16V	C3076	1-112-781-11	CERAMIC CHIP	1UF	10%	10V
C2156	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C3079	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2157	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C3080	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2158	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C3081	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2159	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C3082	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2160	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C3083	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2161	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C3084	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2164	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C3085	1-125-623-11	DOUBLE LAYER	0.22F	5.5V	
C2165	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C3087	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2168	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V	C3088	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C2169	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V	C3110	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C2170	1-162-979-11	CERAMIC CHIP	0.0027UF	10.00%	50V	C3112	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2171	1-162-979-11	CERAMIC CHIP	0.0027UF	10.00%	50V	C4001	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2172	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V	C4002	1-117-681-11	ELECT CHIP	100UF	20.00%	16V
C2173	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V	C4003	1-164-868-11	CERAMIC CHIP	56PF	5.00%	50V
C2174	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C4004	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V
C2175	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C4005	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V
C2177	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C4008	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2178	1-100-764-21	ELECT CHIP	4.7UF	20%	25V	C4009	1-164-677-11	CERAMIC CHIP	0.033UF	10.00%	16V
C2179	1-100-764-21	ELECT CHIP	4.7UF	20%	25V	C4010	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C2180	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V	C4011	1-100-912-11	CERAMIC CHIP	1UF	10%	25V
C2182	1-114-330-11	CERAMIC CHIP	2.2UF	10%	16V	C4012	1-100-912-11	CERAMIC CHIP	1UF	10%	25V
C2187	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C4013	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2188	1-112-064-11	CERAMIC CHIP	2.2UF	10%	10V	C4014	1-164-245-11	CERAMIC CHIP	0.015UF	10.00%	25V
C2190	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V	C4015	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C2191	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V	C4016	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C2192	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V	C4018	1-164-868-11	CERAMIC CHIP	56PF	5.00%	50V
C3005	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V	C4021	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C3006	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V	C4022	1-165-667-21	ELECT CHIP	100UF	20%	6.3V

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REF NO.	PART NO.	DESCRIPTION	REMARK			REF NO.	PART NO.	DESCRIPTION	REMARK		
C4024	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4702	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4025	1-165-667-21	ELECT CHIP	100UF	20%	6.3V	C4704	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C4029	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C4705	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4033	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C4708	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4034	1-112-046-11	CERAMIC CHIP	4.7UF	10%	6.3V	C4712	1-162-979-11	CERAMIC CHIP	0.0027UF	10.00%	50V
C4035	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C4713	1-162-979-11	CERAMIC CHIP	0.0027UF	10.00%	50V
C4041	1-112-774-11	CERAMIC CHIP	470PF	10%	50V	C4716	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4042	1-112-774-11	CERAMIC CHIP	470PF	10%	50V	C4717	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4043	1-112-774-11	CERAMIC CHIP	470PF	10%	50V	C4718	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4044	1-112-774-11	CERAMIC CHIP	470PF	10%	50V	C4720	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4045	1-112-774-11	CERAMIC CHIP	470PF	10%	50V	C4721	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4046	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C4722	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4052	1-165-629-91	CERAMIC CHIP	1UF	10%	50V	C4723	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4053	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V	C4724	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4054	1-165-667-21	ELECT CHIP	100UF	20%	6.3V	C4725	1-164-882-11	CERAMIC CHIP	220PF	5.00%	16V
C4055	1-165-667-21	ELECT CHIP	100UF	20%	6.3V	C4726	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4057	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C4730	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4058	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V	C4731	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4059	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C4732	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4062	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4734	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4063	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4736	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4064	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4739	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4065	1-126-193-11	ELECT CHIP	1UF	20.00%	50V	C4740	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4072	1-126-193-11	ELECT CHIP	1UF	20.00%	50V	C4741	1-112-066-11	CERAMIC CHIP	10UF	10%	10V
C4073	1-126-193-11	ELECT CHIP	1UF	20.00%	50V	C4746	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4075	1-125-838-11	CERAMIC CHIP	2.2UF	10%	6.3V	C4750	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4076	1-126-204-11	ELECT CHIP	47UF	20.00%	16V	C4752	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4077	1-117-681-11	ELECT CHIP	100UF	20.00%	16V	C4757	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4078	1-112-780-11	CERAMIC CHIP	0.47UF	10%	16V	C4758	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4079	1-126-204-11	ELECT CHIP	47UF	20.00%	16V	C4759	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4081	1-126-204-11	ELECT CHIP	47UF	20.00%	16V	C4760	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4082	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V	C4762	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4083	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V	C4765	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4084	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V	C4769	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4085	1-100-911-11	CERAMIC CHIP	4.7UF	10%	25V	C4773	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4086	1-112-780-11	CERAMIC CHIP	0.47UF	10%	16V	C4774	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V
C4087	1-126-204-11	ELECT CHIP	47UF	20.00%	16V	C4778	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4089	1-117-681-11	ELECT CHIP	100UF	20.00%	16V	C4779	1-112-781-11	CERAMIC CHIP	1UF	10%	10V
C4500	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4780	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4502	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4781	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4503	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4803	1-112-781-11	CERAMIC CHIP	1UF	10%	10V
C4505	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4805	1-114-325-11	CERAMIC CHIP	0.1UF	10%	25V
C4506	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4806	1-126-396-11	ELECT CHIP	47UF	20.00%	16V
C4507	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4808	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V
C4513	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4814	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C4514	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4902	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C4515	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4903	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4516	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4904	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C4517	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4906	1-126-392-11	ELECT CHIP	100UF	20.00%	6.3V
C4518	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4907	1-112-776-11	CERAMIC CHIP	0.0047UF	10%	50V
C4519	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4908	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C4520	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4909	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C4521	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4910	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C4524	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V	C4911	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C4525	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C4912	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4527	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V	C4913	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C4528	1-112-774-11	CERAMIC CHIP	470PF	10%	50V	C4914	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V
C4530	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C4915	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C4531	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	C4916	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C4701	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C4917	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V

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The components identified by shading and mark are critical for safety. Replace only with part number specified.

REF NO.	PART NO.	DESCRIPTION	REMARK			REF NO.	PART NO.	DESCRIPTION	REMARK		
C4918	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C7050	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V
C4919	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C7051	1-164-939-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C5002	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C7052	1-164-939-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C5005	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C7053	1-100-743-91	CERAMIC CHIP	2.2UF	20%	16V
C5006	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	C7054	1-126-396-11	ELECT CHIP	47UF	20.00%	16V
C5008	1-112-781-11	CERAMIC CHIP	1UF	10%	10V	C7055	1-164-939-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C5009	1-100-906-11	CERAMIC CHIP	0.01UF	10%	16V	C7056	1-107-819-11	CERAMIC CHIP	0.022UF	10.00%	16V
						C7057	1-100-581-81	CERAMIC CHIP	0.0047UF	10%	50V
C5502	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C7058	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C5505	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	C7059	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C5509	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7060	1-100-743-91	CERAMIC CHIP	2.2UF	20%	16V
C5510	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7061	1-117-681-11	ELECT CHIP	100UF	20.00%	16V
C5511	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7062	1-126-396-11	ELECT CHIP	47UF	20.00%	16V
C5512	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7063	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C5513	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7064	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C5514	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V						
C5517	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7066	1-107-819-11	CERAMIC CHIP	0.022UF	10.00%	16V
C5518	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7071	1-164-935-11	CERAMIC CHIP	470PF	10.00%	50V
						C7079	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C5519	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7089	1-117-681-11	ELECT CHIP	100UF	20.00%	16V
C5520	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7090	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V
C5521	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7101	1-164-870-11	CERAMIC CHIP	68PF	5.00%	50V
C5522	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	C7102	1-164-870-11	CERAMIC CHIP	68PF	5.00%	50V
C5524	1-112-066-11	CERAMIC CHIP	10UF	10%	10V						
C5525	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V						
C5526	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V						
C5527	1-112-777-11	CERAMIC CHIP	0.01UF	10%	25V	* CN1400	1-819-928-11	HEADER ASSENBLY 20P			
C5528	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	* CN2000	1-819-461-11	HEADER ASSEMBLY FOR PWB			
						CN3003	1-779-331-51	CONNECTOR, FFC/FPC 14P			
C5529	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	CN3004	1-779-936-51	CONNECTOR, FFC/FPC 18P			
C5530	1-112-066-11	CERAMIC CHIP	10UF	10%	10V	* CN3008	1-819-928-11	HEADER ASSENBLY 20P			
C5531	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V						
C5533	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	CN3009	1-820-181-11	HEADER ASSEMBLY (PRINT PWB)			
C5620	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V	CN3500	1-820-192-11	HEADER ASSEMBLY (PRINT PWB) 15P			
						* CN4001	1-820-550-11	HEADER ASSEMBLY FOR PWB			
C7002	1-127-931-21	ELECT CHIP	470UF	20%	16V	CN4002	1-819-463-11	HEADER ASSEMBLY FOR PWB			
C7004	1-164-862-11	CERAMIC CHIP	33PF	5.00%	50V	* CN4003	1-819-333-11	HEADER ASSEMBLY FOR PWB			
C7006	1-164-862-11	CERAMIC CHIP	33PF	5.00%	50V	CN4500	1-819-106-12	HEADER ASSENBLY 40P			
C7008	1-164-870-11	CERAMIC CHIP	68PF	5.00%	50V						
C7009	1-124-779-00	ELECT CHIP	10UF	20.00%	16V						
C7010	1-164-870-11	CERAMIC CHIP	68PF	5.00%	50V						
C7016	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V						
C7020	1-165-708-11	ELECT CHIP	47UF	20%	6.3V	D1000	6-501-758-01	DIODE MAZ8100G0LS0			
C7021	1-164-937-11	CERAMIC CHIP	0.001UF	10.00%	50V	D1001	6-501-758-01	DIODE MAZ8100G0LS0			
C7026	1-164-876-11	CERAMIC CHIP	120PF	5.00%	50V	D1002	6-501-758-01	DIODE MAZ8100G0LS0			
						D1005	6-501-758-01	DIODE MAZ8100G0LS0			
C7028	1-112-776-11	CERAMIC CHIP	0.0047UF	10%	50V	D1008	6-501-758-01	DIODE MAZ8100G0LS0			
C7030	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V						
C7031	1-162-906-11	CERAMIC CHIP	1.5PF	0.25PF	50V	D2014	6-501-756-01	DIODE MAZ8091GMLS0			
C7033	1-165-708-11	ELECT CHIP	47UF	20%	6.3V	* D2018	6-501-732-01	DIODE MAZ8056G0LS0			
C7034	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V	* D2019	6-501-732-01	DIODE MAZ8056G0LS0			
						* D2020	6-501-732-01	DIODE MAZ8056G0LS0			
C7035	1-100-905-11	CERAMIC CHIP	0.001UF	10%	50V	* D2021	6-501-732-01	DIODE MAZ8056G0LS0			
C7036	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V						
C7037	1-126-394-11	ELECT CHIP	10UF	20.00%	16V	D2022	8-719-422-46	DIODE MA8056			
C7038	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V	D3002	8-719-071-87	DIODE MA785-(TX),SO			
C7039	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	D3006	6-501-817-01	DIODE MA2J1110GLS0			
						D3007	8-719-077-59	DIODE 1PS302			
C7040	1-126-394-11	ELECT CHIP	10UF	20.00%	16V	* D3020	6-501-732-01	DIODE MAZ8056G0LS0			
C7041	1-165-708-11	ELECT CHIP	47UF	20%	6.3V						
C7042	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V	* D3021	6-501-732-01	DIODE MAZ8056G0LS0			
C7043	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V	D3022	6-501-817-01	DIODE MA2J1110GLS0			
C7044	1-100-916-11	CERAMIC CHIP	0.1UF	10%	16V	D4006	6-501-657-01	DIODE MA24D5000BS0			
						D4007	6-501-657-01	DIODE MA24D5000BS0			
C7045	1-164-882-11	CERAMIC CHIP	220PF	5.00%	16V	D4008	6-501-528-01	DIODE 1SMA5915BT3G			
C7046	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V	D4010	6-501-528-01	DIODE 1SMA5915BT3G			
C7047	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V	D4012	6-501-774-01	DIODE MAZ8150G0LS0			
C7048	1-126-394-11	ELECT CHIP	10UF	20.00%	16V	D4050	8-719-056-83	DIODE UDZ-TE-17-6.8B			
C7049	1-165-887-91	CERAMIC CHIP	0.22UF	10%	6.3V						

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REF NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK
D4054	8-719-076-88	DIODE MA2Z720001S0		FB4008	1-400-591-22	FERRITE	0UH
D4056	8-719-977-28	DIODE DTZ10B		FB4009	1-400-591-22	FERRITE	0UH
D4057	8-719-404-50	DIODE MA111-TX		FB4010	1-400-591-22	FERRITE	0UH
* D5000	6-501-732-01	DIODE MAZ8056G0LS0		FB4011	1-400-591-22	FERRITE	0UH
* D5001	6-501-732-01	DIODE MAZ8056G0LS0		FB4050	1-400-794-21	FERRITE	0UH
* D5002	6-501-732-01	DIODE MAZ8056G0LS0		FB4051	1-400-794-21	FERRITE	0UH
D5003	8-719-050-38	DIODE M1MA152WK-T1		FB4053	1-400-794-21	FERRITE	0UH
D5508	6-501-817-01	DIODE MA2J1110GLS0		FB4055	1-400-089-21	FERRITE	0UH
D5516	6-501-817-01	DIODE MA2J1110GLS0		FB4056	1-414-445-11	FERRITE	0UH
D5525	6-501-817-01	DIODE MA2J1110GLS0		FB4058	1-400-089-21	FERRITE	0UH
D5528	6-501-817-01	DIODE MA2J1110GLS0		FB4501	1-469-669-21	FERRITE	0UH
D5620	6-500-813-01	DIODE MA2SD32008S0		FB4701	1-400-794-21	FERRITE	0UH
FB4702	1-400-110-21	FERRITE	0UH				
D7003	8-719-058-24	DIODE RB501V-40TE-17		FB4703	1-400-110-21	FERRITE	0UH
ET4001	1-780-482-11	EARTH TERMINAL		FB4705	1-400-110-21	FERRITE	0UH
ET4003	1-780-482-11	EARTH TERMINAL		FB4706	1-400-110-21	FERRITE	0UH
ET4004	1-780-482-11	EARTH TERMINAL		FB4744	1-400-177-21	FERRITE	0UH
ET4005	1-780-482-11	EARTH TERMINAL		FB5000	1-469-100-21	FERRITE	0UH
ET4006	1-780-482-11	EARTH TERMINAL					
ET4007	1-780-482-11	EARTH TERMINAL		FB5001	1-469-100-21	FERRITE	0UH
ET4008	1-780-482-11	EARTH TERMINAL		FB5002	1-469-100-21	FERRITE	0UH
ET4010	1-780-482-11	EARTH TERMINAL		FB5004	1-469-100-21	FERRITE	0UH
				FB5005	1-400-110-21	FERRITE	0UH
				FB5006	1-469-100-21	FERRITE	0UH
		<FUSE>					
F2000	1-576-958-21	FUSE	4A	FB5501	1-469-100-21	FERRITE	0UH
F2001	1-576-913-11	FUSE	1.6A	FB7000	1-469-775-21	FERRITE	0UH
F2002	1-576-646-11	FUSE	0.5A	FB7001	1-414-760-21	FERRITE	0UH
F3001	1-576-646-11	FUSE	0.5A	FB7002	1-414-760-21	FERRITE	0UH
F4001	1-576-603-21	FUSE	3.15A	FB7004	1-469-775-21	FERRITE	0UH
				FB7008	1-469-324-21	FERRITE	0UH
F4005	1-576-933-21	FUSE	5A	FB7016	1-400-794-21	FERRITE	0UH
F4006	1-576-913-11	FUSE	1.6A	FB7017	1-400-794-21	FERRITE	0UH
F4050	1-576-603-21	FUSE	3.15A	FB7018	1-400-040-22	FERRITE	0UH
				FB7019	1-400-040-22	FERRITE	0UH
		<FERRITE BEAD>					
				FB7022	1-400-499-21	FERRITE	0UH
FB1400	1-400-807-21	FERRITE	0UH			<FILTER>	
FB1401	1-400-807-21	FERRITE	0UH				
FB2006	1-400-089-21	FERRITE	0UH	FL3001	1-234-177-21	FERRITE	0UH
FB2007	1-400-089-21	FERRITE	0UH	FL3501	1-234-177-21	FERRITE	0UH
FB2008	1-400-089-21	FERRITE	0UH	FL4051	1-234-177-21	FERRITE	0UH
FB2009	1-400-089-21	FERRITE	0UH	FL4052	1-234-177-21	FERRITE	0UH
FB2012	1-400-807-21	FERRITE	0UH	FL4701	1-234-177-21	FERRITE	0UH
FB2015	1-400-212-22	FERRITE	0UH				
FB2016	1-400-110-21	FERRITE	0UH	FL4703	1-234-177-21	FERRITE	0UH
FB2017	1-400-807-21	FERRITE	0UH	FL4705	1-234-177-21	FERRITE	0UH
				FL4706	1-234-177-21	FERRITE	0UH
FB2018	1-400-807-21	FERRITE	0UH	FL4707	1-234-177-21	FERRITE	0UH
FB2019	1-400-807-21	FERRITE	0UH	FL4900	1-234-177-21	FERRITE	0UH
FB3500	1-414-445-11	FERRITE	0UH				
FB3501	1-414-445-11	FERRITE	0UH	FL4901	1-234-177-21	FERRITE	0UH
FB3502	1-414-445-11	FERRITE	0UH	FL5501	1-234-177-21	FERRITE	0UH
				FL5502	1-234-177-21	FERRITE	0UH
FB3503	1-414-445-11	FERRITE	0UH				
FB3504	1-414-445-11	FERRITE	0UH				
FB3505	1-414-445-11	FERRITE	0UH			<IC>	
FB3506	1-414-445-11	FERRITE	0UH				
FB3507	1-414-445-11	FERRITE	0UH				
				IC2002	6-711-253-01	IC CXD9890AQ	
				IC2003	8-759-278-58	IC NJM4558V-TE2	
FB4001	1-400-089-21	FERRITE	0UH	IC2004	8-759-278-58	IC NJM4558V-TE2	
FB4002	1-400-110-21	FERRITE	0UH	IC2005	6-708-762-01	IC PQ200WNA1ZPH	
FB4003	1-400-089-21	FERRITE	0UH	IC2006	8-759-278-58	IC NJM4558V-TE2	
FB4004	1-400-794-21	FERRITE	0UH				
FB4005	1-414-445-11	FERRITE	0UH	IC2008	6-709-927-01	IC RT8H225C-TP-2	
				IC2009	6-710-904-01	IC TPA3100D2PHPR	
FB4006	1-414-445-11	FERRITE	0UH	IC2010	8-759-359-49	IC NJM3414AV(TE2)	
FB4007	1-414-445-11	FERRITE	0UH				

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REF NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK
IC2011	6-709-927-01	IC RT8H225C-TP-2		L4051	1-481-081-11	INDUCTOR	47UH
IC2013	6-709-927-01	IC RT8H225C-TP-2		L4052	1-416-511-11	INDUCTOR	47UH
IC2014	8-759-592-48	IC TC7SZ32FU(TE85R)		L4053	1-416-740-11	INDUCTOR	10UH
IC3001	6-708-219-01	IC MB91305PMC-G-BNDE1		L4054	1-469-555-21	INDUCTOR	10UH
IC3002	6-709-971-01	IC MX29LV160CTTI-70G		L4055	1-481-081-11	INDUCTOR	47UH
IC3004	6-703-175-01	IC PST3629UL		L4056	1-416-740-11	INDUCTOR	10UH
IC3005	6-710-121-01	IC M24256-BWMN6TP(A)		L4500	1-457-360-21	INDUCTOR	0UH
IC3006	6-709-512-01	IC S-1132B18-M5T1G		L4501	1-457-360-21	INDUCTOR	0UH
IC3007	6-709-731-01	IC ADT75ARZ-REEL		L4502	1-457-360-21	INDUCTOR	0UH
IC3008	6-707-867-01	IC TC74VHC132FT(EKJ)		L4503	1-457-360-21	INDUCTOR	0UH
IC3009	6-709-517-01	IC S-35390A-J8T1G		L4504	1-457-360-21	INDUCTOR	0UH
IC4001	6-710-922-01	IC BD9853AFV-E2		L4505	1-400-177-21	FERRITE	0UH
IC4002	6-708-862-01	IC MM1662FTRE		L4507	1-457-360-21	INDUCTOR	0UH
IC4050	6-710-968-01	IC PQ6CU12X2APQ		L4701	1-400-794-21	FERRITE	0UH
IC4051	6-708-603-01	IC PQ070XNA1ZPH		L4800	1-469-557-21	INDUCTOR	22UH
IC4052	6-708-762-01	IC PQ200WNA1ZPH		L4900	1-400-794-21	FERRITE	0UH
IC4500	6-710-843-01	IC CXD9903GG		L4901	1-400-794-21	FERRITE	0UH
IC4511	6-710-366-01	IC 74LVC1G04GW-125		L5501	1-457-223-11	INDUCTOR	0UH
IC4701	8-759-651-59	IC SN74CBTLV3245APWR		L5502	1-457-223-11	INDUCTOR	0UH
IC4702	8-759-651-59	IC SN74CBTLV3245APWR		L5503	1-457-223-11	INDUCTOR	0UH
IC4703	6-706-491-01	IC TC7SH86FU(T5RSOYJF)		L5504	1-457-223-11	INDUCTOR	0UH
IC4800	6-710-903-01	IC BH7641FV-E2		L5505	1-457-223-11	INDUCTOR	0UH
IC4900	6-710-708-01	IC EM6A9320BI-5MGM		L5506	1-457-223-11	INDUCTOR	0UH
IC5000	6-704-600-01	IC M24C02-WMN6T(B)		L5507	1-457-223-11	INDUCTOR	0UH
IC5001	6-707-846-01	IC TC74LCX14FT(EKJ)		L5508	1-457-223-11	INDUCTOR	0UH
IC5500	6-710-819-01	IC TMDS341APFCR		L7001	1-416-344-11	INDUCTOR	10UH
IC5501	6-704-001-01	IC BR24L02F-WE2		L7008	1-469-555-21	INDUCTOR	10UH
IC5503	6-704-001-01	IC BR24L02F-WE2		L7009	1-412-058-11	INDUCTOR	10UH
IC5504	6-708-758-01	IC PCA9517DP.118		L7010	1-412-990-41	INDUCTOR	8.2UH
IC5510	8-759-596-34	IC SN74LV4053APWR		L7012	1-412-058-11	INDUCTOR	10UH
IC7000	6-702-714-11	IC MSP3417G-QG-B8V3-T		L7014	1-412-058-11	INDUCTOR	10UH
		<JACK>		L7015	1-469-555-21	INDUCTOR	10UH
J1000	1-780-487-11	S TERMINAL BLOCK		L7016	1-412-058-11	INDUCTOR	10UH
J1101	1-821-064-11	PHONO JACK 10P		L7018	1-469-557-21	INDUCTOR	22UH
J1200	1-821-226-11	PHONO JACK 3P				<IC LINK>	
J1701	1-820-765-11	PHONO JACK 2P		PS5000	1-576-646-11	FUSE	0.5A
J1710	1-820-638-11	JACK (SMALL TYPE)					50V
J1720	1-820-765-11	PHONO JACK 2P				<TRANSISTOR>	
J5000	1-821-013-11	DSUB CONNECTOR		Q2006	8-729-028-96	TRANSISTOR DTC114EUA-T106	
J5502	1-818-737-11	HDMI CONNECTOR		Q2007	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
J5503	1-818-737-11	HDMI CONNECTOR		Q2008	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
		<COIL>		Q2009	8-729-028-96	TRANSISTOR DTC114EUA-T106	
				Q2010	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
L2009	1-469-555-21	INDUCTOR	10UH	Q2012	6-551-271-01	TRANSISTOR RT3AMMM	
L2010	1-469-555-21	INDUCTOR	10UH	Q2013	6-551-271-01	TRANSISTOR RT3AMMM	
L2011	1-469-555-21	INDUCTOR	10UH	Q2016	8-729-028-96	TRANSISTOR DTC114EUA-T106	
L2014	1-469-555-21	INDUCTOR	10UH	Q2017	8-729-028-96	TRANSISTOR DTC114EUA-T106	
L2015	1-469-555-21	INDUCTOR	10UH	Q2018	8-729-028-97	TRANSISTOR DTC114TUA-T106	
L2016	1-481-083-11	INDUCTOR	22UH	Q2019	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
L2017	1-412-058-11	INDUCTOR	10UH	Q2020	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
L2022	1-457-429-11	INDUCTOR	22UH	Q2021	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
L2023	1-457-429-11	INDUCTOR	22UH	Q2022	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
L2024	1-457-429-11	INDUCTOR	22UH	Q2023	8-729-028-96	TRANSISTOR DTC114EUA-T106	
L2025	1-457-429-11	INDUCTOR	22UH	Q2024	8-729-028-91	TRANSISTOR DTA144EUA-T106	
L3002	1-400-794-21	FERRITE	0UH	Q2025	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
L4001	1-457-195-11	INDUCTOR	4.7UH	Q2026	6-551-677-01	TRANSISTOR RTAN140M-T111-1	
L4002	1-457-195-11	INDUCTOR	4.7UH	Q2029	8-729-028-96	TRANSISTOR DTC114EUA-T106	
L4050	1-469-555-21	INDUCTOR	10UH	Q2030	8-729-028-96	TRANSISTOR DTC114EUA-T106	

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Q2031	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1014	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q2032	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1015	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q2045	6-551-677-01	TRANSISTOR RTAN140M-T111-1		R1016	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q2046	6-551-677-01	TRANSISTOR RTAN140M-T111-1		R1017	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q3001	6-551-387-01	TRANSISTOR SSM6N16FU		R1018	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q3002	6-551-420-01	TRANSISTOR RT1N151M-TP-1		R1019	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q3003	8-729-028-74	TRANSISTOR DTA114TUA-T106		R1020	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q3004	8-729-013-28	TRANSISTOR HN1B01FU-TE85R		R1021	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q3005	8-729-028-74	TRANSISTOR DTA114TUA-T106		R1026	1-218-941-81	RES-CHIP	100 5% 1/16W
Q3006	6-550-260-01	TRANSISTOR RT1N237M-TP-1		R1027	1-218-941-81	RES-CHIP	100 5% 1/16W
Q3007	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1028	1-218-953-11	RES-CHIP	1K 5% 1/16W
Q3008	6-551-424-01	TRANSISTOR RT1P151M-TP-1		R1029	1-218-953-11	RES-CHIP	1K 5% 1/16W
Q4005	6-550-828-01	TRANSISTOR RSQ035P03TR		R1030	1-218-941-81	RES-CHIP	100 5% 1/16W
Q4006	6-550-828-01	TRANSISTOR RSQ035P03TR		R1031	1-218-941-81	RES-CHIP	100 5% 1/16W
Q4007	6-550-355-01	TRANSISTOR RTQ045N03TR		R1100	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q4008	6-550-355-01	TRANSISTOR RTQ045N03TR		R1103	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q4011	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1104	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q4012	8-729-054-36	TRANSISTOR UPA1716G-E2		R1105	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q4014	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1106	1-218-989-11	RES-CHIP	1M 5% 1/16W
Q4015	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1107	1-218-989-11	RES-CHIP	1M 5% 1/16W
Q4016	8-729-028-97	TRANSISTOR DTC114TUA-T106		R1108	1-218-989-11	RES-CHIP	1M 5% 1/16W
Q4017	8-729-028-97	TRANSISTOR DTC114TUA-T106		R1109	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q4800	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF		R1110	1-218-989-11	RES-CHIP	1M 5% 1/16W
Q4801	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF		R1111	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q5503	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		R1112	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q5505	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		R1113	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q5507	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1114	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
Q5509	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1115	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q5510	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1116	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q5620	6-551-699-01	TRANSISTOR ISA1602AM1TP-1EF		R1117	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q5621	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R1118	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q5622	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R1119	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q5623	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1120	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7000	8-729-047-14	TRANSISTOR 2SC3775		R1123	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7001	8-729-027-43	TRANSISTOR DTC114EKA-T146		R1126	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7002	8-729-027-43	TRANSISTOR DTC114EKA-T146		R1127	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7003	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		R1128	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7004	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF		R1129	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7005	8-729-028-96	TRANSISTOR DTC114EUA-T106		R1130	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7006	8-729-905-35	TRANSISTOR 2SC4081-R		R1131	1-218-831-11	METAL CHIP	220 0.50% 1/10W
Q7007	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R1134	1-218-933-11	RES-CHIP	22 5% 1/16W
Q7008	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR		R1135	1-218-933-11	RES-CHIP	22 5% 1/16W
Q7009	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R1136	1-218-933-11	RES-CHIP	22 5% 1/16W
Q7010	6-551-696-01	TRANSISTOR ISA1235AC1TP-1EF		R1137	1-218-933-11	RES-CHIP	22 5% 1/16W
Q7013	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR		R1138	1-218-933-11	RES-CHIP	22 5% 1/16W
Q7014	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		R1139	1-218-933-11	RES-CHIP	22 5% 1/16W
Q7015	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		R1201	1-218-981-11	RES-CHIP	220K 5% 1/16W
Q7016	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R1202	1-218-990-81	SHORT CHIP	0
Q7017	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R1203	1-218-990-81	SHORT CHIP	0
		<RESISTOR>		R1204	1-218-285-11	METAL CHIP	75 5% 1/10W
R1002	1-218-831-11	METAL CHIP	220 0.50%	R1205	1-218-981-11	RES-CHIP	220K 5% 1/16W
R1004	1-218-831-11	METAL CHIP	220 0.50%	R1206	1-218-981-11	RES-CHIP	220K 5% 1/16W
R1005	1-218-831-11	METAL CHIP	220 0.50%	R1211	1-216-864-11	SHORT CHIP	0
R1007	1-218-831-11	METAL CHIP	220 0.50%	R1409	1-218-990-81	SHORT CHIP	0
R1008	1-218-989-11	RES-CHIP	1M 5%	R1410	1-218-990-81	SHORT CHIP	0
R1009	1-218-989-11	RES-CHIP	1M 5%	R1411	1-218-990-81	SHORT CHIP	0
R1010	1-218-831-11	METAL CHIP	220 0.50%	R1412	1-218-990-81	SHORT CHIP	0
R1011	1-218-989-11	RES-CHIP	1M 5%	R1700	1-218-981-11	RES-CHIP	220K 5% 1/16W
R1012	1-218-989-11	RES-CHIP	1M 5%	R1701	1-218-981-11	RES-CHIP	220K 5% 1/16W
R1013	1-218-285-11	METAL CHIP	75 5%	R1702	1-218-949-11	RES-CHIP	470 5% 1/16W

**BG1**

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The components identified by shading and mark are critical for safety. Replace only with part number specified.

REF NO.	PART NO.	DESCRIPTION	REMARK		REF NO.	PART NO.	DESCRIPTION	REMARK			
R1703	1-218-949-11	RES-CHIP	470	5%	1/16W	R2127	1-208-905-11	METAL CHIP	5.6K	0.50%	1/16W
R1710	1-218-989-11	RES-CHIP	1M	5%	1/16W	R2128	1-208-911-11	METAL CHIP	10K	0.50%	1/16W
R1711	1-218-989-11	RES-CHIP	1M	5%	1/16W	R2129	1-208-715-11	METAL CHIP	22K	0.50%	1/16W
R1712	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R2130	1-208-697-11	METAL CHIP	3.9K	0.50%	1/16W
R1713	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R2131	1-208-697-11	METAL CHIP	3.9K	0.50%	1/16W
R1720	1-218-989-11	RES-CHIP	1M	5%	1/16W	R2133	1-208-715-11	METAL CHIP	22K	0.50%	1/16W
R1721	1-218-989-11	RES-CHIP	1M	5%	1/16W	R2138	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1722	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R2139	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1723	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R2141	1-218-949-11	RES-CHIP	470	5%	1/16W
R2020	1-218-965-11	RES-CHIP	10K	5%	1/16W	R2142	1-218-949-11	RES-CHIP	470	5%	1/16W
R2023	1-218-990-81	SHORT CHIP	0			R2143	1-208-711-11	METAL CHIP	15K	0.50%	1/16W
R2026	1-218-937-11	RES-CHIP	47	5%	1/16W	R2145	1-208-711-11	METAL CHIP	15K	0.50%	1/16W
R2033	1-218-941-81	RES-CHIP	100	5%	1/16W	R2147	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2042	1-218-937-11	RES-CHIP	47	5%	1/16W	R2148	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2044	1-218-937-11	RES-CHIP	47	5%	1/16W	R2149	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2049	1-218-990-81	SHORT CHIP	0			R2150	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2050	1-218-989-11	RES-CHIP	1M	5%	1/16W	R2151	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2056	1-218-963-11	RES-CHIP	6.8K	5%	1/16W	R2153	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2057	1-218-963-11	RES-CHIP	6.8K	5%	1/16W	R2154	1-218-990-81	SHORT CHIP	0		
R2063	1-218-990-81	SHORT CHIP	0			R2155	1-218-990-81	SHORT CHIP	0		
R2064	1-218-965-11	RES-CHIP	10K	5%	1/16W	R2162	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2070	1-218-990-81	SHORT CHIP	0			R2163	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2073	1-218-941-81	RES-CHIP	100	5%	1/16W	R2166	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2074	1-218-953-11	RES-CHIP	1K	5%	1/16W	R2167	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2075	1-218-937-11	RES-CHIP	47	5%	1/16W	R2168	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2076	1-218-937-11	RES-CHIP	47	5%	1/16W	R2169	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2077	1-218-937-11	RES-CHIP	47	5%	1/16W	R2170	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2078	1-218-937-11	RES-CHIP	47	5%	1/16W	R2171	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2080	1-218-937-11	RES-CHIP	47	5%	1/16W	R2176	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2082	1-218-937-11	RES-CHIP	47	5%	1/16W	R2177	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2085	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2178	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2087	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2179	1-208-935-11	METAL CHIP	100K	0.50%	1/16W
R2091	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2180	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2092	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2181	1-208-935-11	METAL CHIP	100K	0.50%	1/16W
R2095	1-220-199-81	RES-CHIP	24K	5%	1/16W	R2184	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2098	1-218-965-11	RES-CHIP	10K	5%	1/16W	R2185	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2099	1-218-965-11	RES-CHIP	10K	5%	1/16W	R2186	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R2100	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2187	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R2101	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2188	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R2102	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2189	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R2103	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2198	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R2104	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2199	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2105	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2200	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2106	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2202	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2107	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2204	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2108	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2205	1-208-923-11	METAL CHIP	33K	0.50%	1/16W
R2109	1-218-971-11	RES-CHIP	33K	5%	1/16W	R2207	1-218-937-11	RES-CHIP	47	5%	1/16W
R2110	1-208-691-11	METAL CHIP	2.2K	0.50%	1/16W	R2210	1-208-703-11	METAL CHIP	6.8K	0.50%	1/16W
R2111	1-208-691-11	METAL CHIP	2.2K	0.50%	1/16W	R2211	1-208-703-11	METAL CHIP	6.8K	0.50%	1/16W
R2112	1-208-715-11	METAL CHIP	22K	0.50%	1/16W	R2212	1-208-711-11	METAL CHIP	15K	0.50%	1/16W
R2113	1-208-715-11	METAL CHIP	22K	0.50%	1/16W	R2213	1-208-711-11	METAL CHIP	15K	0.50%	1/16W
R2115	1-208-927-11	METAL CHIP	47K	0.50%	1/16W	R2214	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2117	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R2215	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2118	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R2216	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2119	1-208-927-11	METAL CHIP	47K	0.50%	1/16W	R2217	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2120	1-208-927-11	METAL CHIP	47K	0.50%	1/16W	R2218	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2121	1-208-715-11	METAL CHIP	22K	0.50%	1/16W	R2219	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2122	1-208-715-11	METAL CHIP	22K	0.50%	1/16W	R2227	1-208-691-11	METAL CHIP	2.2K	0.50%	1/16W
R2124	1-208-905-11	METAL CHIP	5.6K	0.50%	1/16W	R2228	1-208-703-11	METAL CHIP	6.8K	0.50%	1/16W
R2125	1-208-911-11	METAL CHIP	10K	0.50%	1/16W	R2229	1-208-683-11	METAL CHIP	1K	0.50%	1/16W
R2126	1-208-927-11	METAL CHIP	47K	0.50%	1/16W						

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REF NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK
R2230	1-218-990-81	SHORT CHIP	0	R3158	1-218-941-81	RES-CHIP	100 5% 1/16W
R2232	1-218-990-81	SHORT CHIP	0	R3162	1-218-973-11	RES-CHIP	47K 5% 1/16W
R2234	1-208-935-11	METAL CHIP	100K 0.50% 1/16W	R3165	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2235	1-208-923-11	METAL CHIP	33K 0.50% 1/16W	R3167	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2236	1-208-695-11	METAL CHIP	3.3K 0.50% 1/16W	R3168	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2237	1-208-695-11	METAL CHIP	3.3K 0.50% 1/16W	R3169	1-216-864-11	SHORT CHIP	0
R2238	1-208-683-11	METAL CHIP	1K 0.50% 1/16W	R3170	1-400-794-21	FERRITE	0UH
R2239	1-208-683-11	METAL CHIP	1K 0.50% 1/16W	R3180	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2241	1-208-713-11	METAL CHIP	18K 0.50% 1/16W	R3181	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2242	1-208-715-11	METAL CHIP	22K 0.50% 1/16W	R3186	1-218-990-81	SHORT CHIP	0
R2245	1-218-941-81	RES-CHIP	100 5% 1/16W	R3188	1-218-990-81	SHORT CHIP	0
R2246	1-218-959-11	RES-CHIP	3.3K 5% 1/16W	R3190	1-208-886-81	METAL CHIP	910 0.50% 1/16W
R2247	1-218-959-11	RES-CHIP	3.3K 5% 1/16W	R3193	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2248	1-218-959-11	RES-CHIP	3.3K 5% 1/16W	R3195	1-218-990-81	SHORT CHIP	0
R2249	1-218-953-11	RES-CHIP	1K 5% 1/16W	R3196	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2259	1-208-695-11	METAL CHIP	3.3K 0.50% 1/16W	R3198	1-218-990-81	SHORT CHIP	0
R2262	1-208-695-11	METAL CHIP	3.3K 0.50% 1/16W	R3207	1-218-949-11	RES-CHIP	470 5% 1/16W
R2268	1-218-941-81	RES-CHIP	100 5% 1/16W	R3208	1-218-990-81	SHORT CHIP	0
R2269	1-218-965-11	RES-CHIP	10K 5% 1/16W	R3209	1-218-990-81	SHORT CHIP	0
R2270	1-218-941-81	RES-CHIP	100 5% 1/16W	R3210	1-218-949-11	RES-CHIP	470 5% 1/16W
R2271	1-218-965-11	RES-CHIP	10K 5% 1/16W	R3212	1-218-949-11	RES-CHIP	470 5% 1/16W
R2272	1-208-695-11	METAL CHIP	3.3K 0.50% 1/16W	R3218	1-218-961-11	RES-CHIP	4.7K 5% 1/16W
R2273	1-208-695-11	METAL CHIP	3.3K 0.50% 1/16W	R3223	1-218-945-11	RES-CHIP	220 5% 1/16W
R2274	1-218-990-81	SHORT CHIP	0	R3224	1-218-990-81	SHORT CHIP	0
R2275	1-218-990-81	SHORT CHIP	0	R3226	1-218-945-11	RES-CHIP	220 5% 1/16W
R2277	1-218-977-11	RES-CHIP	100K 5% 1/16W	R3243	1-218-941-81	RES-CHIP	100 5% 1/16W
R2279	1-218-977-11	RES-CHIP	100K 5% 1/16W	R3246	1-218-965-11	RES-CHIP	10K 5% 1/16W
R2280	1-218-977-11	RES-CHIP	100K 5% 1/16W	R3247	1-218-990-81	SHORT CHIP	0
R2281	1-218-977-11	RES-CHIP	100K 5% 1/16W	R3255	1-400-591-22	FERRITE	0UH
R3001	1-216-864-11	SHORT CHIP	0	R3256	1-400-591-22	FERRITE	0UH
R3005	1-208-683-11	METAL CHIP	1K 0.50% 1/16W	R3257	1-400-591-22	FERRITE	0UH
R3010	1-218-990-81	SHORT CHIP	0	R3258	1-400-591-22	FERRITE	0UH
R3013	1-218-941-81	RES-CHIP	100 5% 1/16W	R3259	1-400-591-22	FERRITE	0UH
R3014	1-218-941-81	RES-CHIP	100 5% 1/16W	R3260	1-400-591-22	FERRITE	0UH
R3015	1-218-941-81	RES-CHIP	100 5% 1/16W	R3261	1-400-591-22	FERRITE	0UH
R3020	1-216-813-11	METAL CHIP	220 5% 1/10W	R3262	1-400-591-22	FERRITE	0UH
R3021	1-218-990-81	SHORT CHIP	0	R3263	1-400-591-22	FERRITE	0UH
R3024	1-218-941-81	RES-CHIP	100 5% 1/16W	R3264	1-400-591-22	FERRITE	0UH
R3023	1-218-941-81	RES-CHIP	100 5% 1/16W	R3265	1-400-591-22	FERRITE	0UH
R3024	1-218-941-81	RES-CHIP	100 5% 1/16W	R3266	1-216-864-11	SHORT CHIP	0
R3031	1-208-931-11	METAL CHIP	68K 0.50% 1/16W	R3267	1-216-864-11	SHORT CHIP	0
R3034	1-208-703-11	METAL CHIP	6.8K 0.50% 1/16W	R3270	1-218-941-81	RES-CHIP	100 5% 1/16W
R3036	1-218-965-11	RES-CHIP	10K 5% 1/16W	R3271	1-218-977-11	RES-CHIP	100K 5% 1/16W
R3037	1-208-711-11	METAL CHIP	15K 0.50% 1/16W	R3274	1-218-977-11	RES-CHIP	100K 5% 1/16W
R3038	1-218-965-11	RES-CHIP	10K 5% 1/16W	R3290	1-218-990-81	SHORT CHIP	0
R3045	1-218-965-11	RES-CHIP	10K 5% 1/16W	R3291	1-218-941-81	RES-CHIP	100 5% 1/16W
R3049	1-218-965-11	RES-CHIP	10K 5% 1/16W	R3295	1-208-697-11	METAL CHIP	3.9K 0.50% 1/16W
R3052	1-218-941-81	RES-CHIP	100 5% 1/16W	R3514	1-218-941-81	RES-CHIP	100 5% 1/16W
R3053	1-218-990-81	SHORT CHIP	0	R3515	1-218-990-81	SHORT CHIP	0
R3058	1-218-990-81	SHORT CHIP	0	R3516	1-218-941-81	RES-CHIP	100 5% 1/16W
R3061	1-218-965-11	RES-CHIP	10K 5% 1/16W	R4005	1-208-711-11	METAL CHIP	15K 0.50% 1/16W
R3069	1-218-941-81	RES-CHIP	100 5% 1/16W	R4006	1-218-977-11	RES-CHIP	100K 5% 1/16W
R3070	1-218-941-81	RES-CHIP	100 5% 1/16W	R4007	1-218-979-11	RES-CHIP	150K 5% 1/16W
R3094	1-218-990-81	SHORT CHIP	0	R4008	1-218-965-11	RES-CHIP	10K 5% 1/16W
R3101	1-218-959-11	RES-CHIP	3.3K 5% 1/16W	R4010	1-208-927-11	METAL CHIP	47K 0.50% 1/16W
R3102	1-218-941-81	RES-CHIP	100 5% 1/16W	R4011	1-208-927-11	METAL CHIP	47K 0.50% 1/16W
R3103	1-218-941-81	RES-CHIP	100 5% 1/16W	R4012	1-208-931-11	METAL CHIP	68K 0.50% 1/16W
R3111	1-218-933-11	RES-CHIP	22 5% 1/16W	R4013	1-218-977-11	RES-CHIP	100K 5% 1/16W
R3113	1-218-933-11	RES-CHIP	22 5% 1/16W	R4014	1-208-703-11	METAL CHIP	6.8K 0.50% 1/16W
R3125	1-218-941-81	RES-CHIP	100 5% 1/16W	R4016	1-218-990-81	SHORT CHIP	0
R3126	1-218-941-81	RES-CHIP	100 5% 1/16W	R4017	1-218-990-81	SHORT CHIP	0
R3144	1-208-691-11	METAL CHIP	2.2K 0.50% 1/16W	R4018	1-218-990-81	SHORT CHIP	0
R3146	1-218-990-81	SHORT CHIP	0	R4018	1-218-990-81	SHORT CHIP	0

**BG1**

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REF NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK
R4019	1-218-990-81	SHORT CHIP	0	R4723	1-218-965-11	RES-CHIP	10K 5% 1/16W
R4020	1-218-990-81	SHORT CHIP	0	R4801	1-218-941-81	RES-CHIP	100 5% 1/16W
R4021	1-208-711-11	METAL CHIP	15K 0.50% 1/16W	R4802	1-218-949-11	RES-CHIP	470 5% 1/16W
R4023	1-218-965-11	RES-CHIP	10K 5% 1/16W	R4804	1-218-941-81	RES-CHIP	100 5% 1/16W
R4026	1-218-990-81	SHORT CHIP	0	R4805	1-218-949-11	RES-CHIP	470 5% 1/16W
R4028	1-208-703-11	METAL CHIP	6.8K 0.50% 1/16W	R4808	1-218-941-81	RES-CHIP	100 5% 1/16W
R4031	1-208-703-11	METAL CHIP	6.8K 0.50% 1/16W	R4900	1-400-794-21	FERRITE	0UH
R4032	1-218-978-11	RES-CHIP	120K 5% 1/16W	R4903	1-208-683-11	METAL CHIP	1K 0.50% 1/16W
R4033	1-208-721-11	METAL CHIP	39K 0.50% 1/16W	R4904	1-208-683-11	METAL CHIP	1K 0.50% 1/16W
R4034	1-216-295-91	SHORT CHIP	0	R4905	1-218-990-81	SHORT CHIP	0
R4035	1-216-864-11	SHORT CHIP	0	R4906	1-208-652-11	METAL CHIP	51 0.50% 1/16W
R4036	1-216-864-11	SHORT CHIP	0	R4907	1-218-990-81	SHORT CHIP	0
R4037	1-216-864-11	SHORT CHIP	0	R4908	1-218-929-11	RES-CHIP	10 5% 1/16W
R4040	1-208-711-11	METAL CHIP	15K 0.50% 1/16W	R4909	1-208-652-11	METAL CHIP	51 0.50% 1/16W
R4042	1-218-977-11	RES-CHIP	100K 5% 1/16W	R4910	1-218-933-11	RES-CHIP	22 5% 1/16W
R4043	1-218-971-11	RES-CHIP	33K 5% 1/16W	R4911	1-218-933-11	RES-CHIP	22 5% 1/16W
R4045	1-216-864-11	SHORT CHIP	0	R4912	1-218-933-11	RES-CHIP	22 5% 1/16W
R4047	1-218-957-11	RES-CHIP	2.2K 5% 1/16W	R4913	1-218-933-11	RES-CHIP	22 5% 1/16W
R4048	1-218-839-11	METAL CHIP	470 0.50% 1/10W	R4914	1-218-929-11	RES-CHIP	10 5% 1/16W
R4049	1-218-983-11	RES-CHIP	330K 5% 1/16W	R4915	1-218-929-11	RES-CHIP	10 5% 1/16W
R4050	1-218-971-11	RES-CHIP	33K 5% 1/16W	R4916	1-218-933-11	RES-CHIP	22 5% 1/16W
R4052	1-216-864-11	SHORT CHIP	0	R4917	1-218-933-11	RES-CHIP	22 5% 1/16W
R4058	1-218-965-11	RES-CHIP	10K 5% 1/16W	R4918	1-218-933-11	RES-CHIP	22 5% 1/16W
R4060	1-218-965-11	RES-CHIP	10K 5% 1/16W	R4919	1-218-933-11	RES-CHIP	22 5% 1/16W
R4066	1-218-953-11	RES-CHIP	1K 5% 1/16W	R5000	1-216-864-11	SHORT CHIP	0
R4067	1-208-721-11	METAL CHIP	39K 0.50% 1/16W	R5012	1-218-827-11	METAL CHIP	150 0.50% 1/10W
R4068	1-218-982-11	RES-CHIP	270K 5% 1/16W	R5013	1-218-827-11	METAL CHIP	150 0.50% 1/10W
R4069	1-208-707-11	METAL CHIP	10K 0.50% 1/16W	R5014	1-218-827-11	METAL CHIP	150 0.50% 1/10W
R4070	1-219-606-11	METAL CHIP	100K 0.50% 1/16W	R5015	1-218-827-11	METAL CHIP	150 0.50% 1/10W
R4083	1-218-990-81	SHORT CHIP	0	R5016	1-218-953-11	RES-CHIP	1K 5% 1/16W
R4084	1-208-699-11	METAL CHIP	4.7K 0.50% 1/16W	R5017	1-218-827-11	METAL CHIP	150 0.50% 1/10W
R4085	1-208-687-11	METAL CHIP	1.5K 0.50% 1/16W	R5018	1-218-827-11	METAL CHIP	150 0.50% 1/10W
R4086	1-218-965-11	RES-CHIP	10K 5% 1/16W	R5019	1-218-977-11	RES-CHIP	100K 5% 1/16W
R4087	1-218-965-11	RES-CHIP	10K 5% 1/16W	R5021	1-216-801-11	METAL CHIP	22 5% 1/10W
R4150	1-208-699-11	METAL CHIP	4.7K 0.50% 1/16W	R5022	1-216-801-11	METAL CHIP	22 5% 1/10W
R4151	1-208-883-81	METAL CHIP	680 0.50% 1/16W	R5023	1-216-801-11	METAL CHIP	22 5% 1/10W
R4152	1-208-691-11	METAL CHIP	2.2K 0.50% 1/16W	R5029	1-218-933-11	RES-CHIP	22 5% 1/16W
R4501	1-218-933-11	RES-CHIP	22 5% 1/16W	R5030	1-218-933-11	RES-CHIP	22 5% 1/16W
R4502	1-218-933-11	RES-CHIP	22 5% 1/16W	R5501	1-218-929-11	RES-CHIP	10 5% 1/16W
R4505	1-218-933-11	RES-CHIP	22 5% 1/16W	R5503	1-208-911-11	METAL CHIP	10K 0.50% 1/16W
R4506	1-218-933-11	RES-CHIP	22 5% 1/16W	R5504	1-208-683-11	METAL CHIP	1K 0.50% 1/16W
R4507	1-218-933-11	RES-CHIP	22 5% 1/16W	R5505	1-218-929-11	RES-CHIP	10 5% 1/16W
R4508	1-218-933-11	RES-CHIP	22 5% 1/16W	R5511	1-208-911-11	METAL CHIP	10K 0.50% 1/16W
R4509	1-218-989-11	RES-CHIP	1M 5% 1/16W	R5512	1-208-683-11	METAL CHIP	1K 0.50% 1/16W
R4510	1-218-990-81	SHORT CHIP	0	R5519	1-218-961-11	RES-CHIP	4.7K 5% 1/16W
R4512	1-218-990-81	SHORT CHIP	0	R5522	1-218-941-81	RES-CHIP	100 5% 1/16W
R4516	1-218-941-81	RES-CHIP	100 5% 1/16W	R5523	1-218-977-11	RES-CHIP	100K 5% 1/16W
R4525	1-218-937-11	RES-CHIP	47 5% 1/16W	R5524	1-218-977-11	RES-CHIP	100K 5% 1/16W
R4530	1-218-953-11	RES-CHIP	1K 5% 1/16W	R5529	1-218-973-11	RES-CHIP	47K 5% 1/16W
R4532	1-218-941-81	RES-CHIP	100 5% 1/16W	R5530	1-218-941-81	RES-CHIP	100 5% 1/16W
R4534	1-218-941-81	RES-CHIP	100 5% 1/16W	R5531	1-218-977-11	RES-CHIP	100K 5% 1/16W
R4537	1-218-941-81	RES-CHIP	100 5% 1/16W	R5534	1-218-961-11	RES-CHIP	4.7K 5% 1/16W
R4542	1-218-965-11	RES-CHIP	10K 5% 1/16W	R5538	1-218-973-11	RES-CHIP	47K 5% 1/16W
R4545	1-218-961-11	RES-CHIP	4.7K 5% 1/16W	R5543	1-218-941-81	RES-CHIP	100 5% 1/16W
R4550	1-218-941-81	RES-CHIP	100 5% 1/16W	R5547	1-218-929-11	RES-CHIP	10 5% 1/16W
R4710	1-218-961-11	RES-CHIP	4.7K 5% 1/16W	R5548	1-218-929-11	RES-CHIP	10 5% 1/16W
R4712	1-218-961-11	RES-CHIP	4.7K 5% 1/16W	R5549	1-218-929-11	RES-CHIP	10 5% 1/16W
R4714	1-218-933-11	RES-CHIP	22 5% 1/16W	R5550	1-218-929-11	RES-CHIP	10 5% 1/16W
R4715	1-218-933-11	RES-CHIP	22 5% 1/16W	R5551	1-218-929-11	RES-CHIP	10 5% 1/16W
R4721	1-216-864-11	SHORT CHIP	0	R5552	1-218-929-11	RES-CHIP	10 5% 1/16W
R4722	1-216-864-11	SHORT CHIP	0	R5553	1-218-929-11	RES-CHIP	10 5% 1/16W
				R5556	1-218-929-11	RES-CHIP	10 5% 1/16W

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**BG1**

REF NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK		
R5558	1-218-965-11	RES-CHIP	10K 5%	1/16W	R7079	1-218-953-11	RES-CHIP	1K 5%	1/16W
R5559	1-218-929-11	RES-CHIP	10 5%	1/16W	R7080	1-218-953-11	RES-CHIP	1K 5%	1/16W
R5560	1-218-929-11	RES-CHIP	10 5%	1/16W	R7081	1-218-961-11	RES-CHIP	4.7K 5%	1/16W
R5561	1-218-929-11	RES-CHIP	10 5%	1/16W	R7082	1-218-961-11	RES-CHIP	4.7K 5%	1/16W
R5562	1-218-929-11	RES-CHIP	10 5%	1/16W	R7084	1-218-989-11	RES-CHIP	1M 5%	1/16W
R5563	1-218-929-11	RES-CHIP	10 5%	1/16W	R7086	1-218-989-11	RES-CHIP	1M 5%	1/16W
R5564	1-218-929-11	RES-CHIP	10 5%	1/16W	R7087	1-218-961-11	RES-CHIP	4.7K 5%	1/16W
R5565	1-218-929-11	RES-CHIP	10 5%	1/16W	R7088	1-218-961-11	RES-CHIP	4.7K 5%	1/16W
R5566	1-218-929-11	RES-CHIP	10 5%	1/16W	R7089	1-218-990-81	SHORT CHIP	0	
R5573	1-218-937-11	RES-CHIP	47 5%	1/16W	R7103	1-216-825-11	METAL CHIP	2.2K 5%	1/10W
R5591	1-208-695-11	METAL CHIP	3.3K 0.50%	1/16W	R7104	1-218-941-81	RES-CHIP	100 5%	1/16W
R5592	1-208-695-11	METAL CHIP	3.3K 0.50%	1/16W	R7105	1-218-990-81	SHORT CHIP	0	
R5593	1-208-695-11	METAL CHIP	3.3K 0.50%	1/16W	R7107	1-218-941-81	RES-CHIP	100 5%	1/16W
R5594	1-208-923-11	METAL CHIP	33K 0.50%	1/16W	R7108	1-218-973-11	RES-CHIP	47K 5%	1/16W
R5622	1-218-965-11	RES-CHIP	10K 5%	1/16W	R7111	1-218-953-11	RES-CHIP	1K 5%	1/16W
R5623	1-218-953-11	RES-CHIP	1K 5%	1/16W	R7113	1-218-958-11	RES-CHIP	2.7K 5%	1/16W
R5624	1-218-969-11	RES-CHIP	22K 5%	1/16W	R7114	1-218-941-81	RES-CHIP	100 5%	1/16W
R5625	1-218-969-11	RES-CHIP	22K 5%	1/16W	R7116	1-218-965-11	RES-CHIP	10K 5%	1/16W
R5628	1-218-965-11	RES-CHIP	10K 5%	1/16W	R7117	1-218-990-81	SHORT CHIP	0	
R5630	1-218-990-81	SHORT CHIP	0						
R5631	1-218-945-11	RES-CHIP	220 5%	1/16W					<RESISTOR BRIDGE>
R5647	1-218-990-81	SHORT CHIP	0						
R5649	1-218-990-81	SHORT CHIP	0		RB2001	1-234-381-21	RES, NETWORK 100K (1005X4)		
R5650	1-218-990-81	SHORT CHIP	0		RB2003	1-239-698-11	RESISTOR, NETWORK 10K		
R5651	1-218-953-11	RES-CHIP	1K 5%	1/16W	RB2004	1-239-674-81	RESISTOR, NETWORK 100		
R5652	1-218-953-11	RES-CHIP	1K 5%	1/16W	RB2006	1-234-378-21	RES, NETWORK 10K (1005X4)		
R5653	1-218-953-11	RES-CHIP	1K 5%	1/16W	RB2007	1-234-378-21	RES, NETWORK 10K (1005X4)		
R7000	1-218-953-11	RES-CHIP	1K 5%	1/16W	RB2008	1-239-674-81	RESISTOR, NETWORK 100		
R7016	1-216-295-91	SHORT CHIP	0		RB2009	1-239-674-81	RESISTOR, NETWORK 100		
R7017	1-208-935-11	METAL CHIP	100K 0.50%	1/16W	RB2011	1-239-698-11	RESISTOR, NETWORK 10K		
R7018	1-208-935-11	METAL CHIP	100K 0.50%	1/16W	RB2012	1-239-698-11	RESISTOR, NETWORK 10K		
R7019	1-218-941-11	RES-CHIP	100 5%	1/16W	RB3004	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7020	1-218-941-11	RES-CHIP	100 5%	1/16W	RB3005	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7025	1-218-941-11	RES-CHIP	100 5%	1/16W	RB3006	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7027	1-218-953-11	RES-CHIP	1K 5%	1/16W	RB3007	1-234-378-21	RES, NETWORK 10K (1005X4)		
R7028	1-218-953-11	RES-CHIP	1K 5%	1/16W	RB3008	1-234-378-21	RES, NETWORK 10K (1005X4)		
R7035	1-218-990-81	SHORT CHIP	0						
R7041	1-208-715-11	METAL CHIP	22K 0.50%	1/16W	RB3010	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7048	1-218-961-11	RES-CHIP	4.7K 5%	1/16W	RB3011	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7050	1-216-821-11	METAL CHIP	1K 5%	1/10W	RB3014	1-239-698-11	RESISTOR, NETWORK 10K		
R7052	1-218-937-11	RES-CHIP	47 5%	1/16W	RB3015	1-239-670-81	RESISTOR, NETWORK 47		
R7054	1-218-961-11	RES-CHIP	4.7K 5%	1/16W	RB3016	1-239-698-11	RESISTOR, NETWORK 10K		
R7055	1-216-821-11	METAL CHIP	1K 5%	1/10W	RB3017	1-239-674-81	RESISTOR, NETWORK 100		
R7056	1-218-977-11	RES-CHIP	100K 5%	1/16W	RB3018	1-239-698-11	RESISTOR, NETWORK 10K		
R7057	1-218-941-81	RES-CHIP	100 5%	1/16W	RB3019	1-239-698-11	RESISTOR, NETWORK 10K		
R7061	1-218-941-81	RES-CHIP	100 5%	1/16W	RB3020	1-239-674-81	RESISTOR, NETWORK 100		
R7062	1-218-941-81	RES-CHIP	100 5%	1/16W	RB3021	1-239-674-81	RESISTOR, NETWORK 100		
R7064	1-218-953-11	RES-CHIP	1K 5%	1/16W					
R7065	1-208-927-11	METAL CHIP	47K 0.50%	1/16W	RB3022	1-239-698-11	RESISTOR, NETWORK 10K		
R7066	1-218-977-11	RES-CHIP	100K 5%	1/16W	RB3024	1-239-698-11	RESISTOR, NETWORK 10K		
R7067	1-218-989-11	RES-CHIP	1M 5%	1/16W	RB4510	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7068	1-208-715-11	METAL CHIP	22K 0.50%	1/16W	RB4512	1-239-698-11	RESISTOR, NETWORK 10K		
R7069	1-218-941-81	RES-CHIP	100 5%	1/16W	RB4701	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7070	1-216-823-11	METAL CHIP	1.5K 5%	1/10W	RB4702	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7071	1-216-823-11	METAL CHIP	1.5K 5%	1/10W	RB4703	1-234-372-11	RES, NETWORK 100 (1005X4)		
R7072	1-216-823-11	METAL CHIP	1.5K 5%	1/10W	RB4704	1-239-698-11	RESISTOR, NETWORK 10K		
R7073	1-218-957-11	RES-CHIP	2.2K 5%	1/16W	RB4800	1-239-674-81	RESISTOR, NETWORK 100		
R7074	1-208-911-11	METAL CHIP	10K 0.50%	1/16W	RB4900	1-234-369-21	RES, NETWORK 10 (1005X4)		
R7075	1-208-697-11	METAL CHIP	3.9K 0.50%	1/16W	RB4901	1-234-369-21	RES, NETWORK 10 (1005X4)		
R7076	1-218-958-11	RES-CHIP	2.7K 5%	1/16W	RB4902	1-234-369-21	RES, NETWORK 10 (1005X4)		
R7077	1-208-929-81	METAL CHIP	56K 0.50%	1/16W	RB4903	1-234-369-21	RES, NETWORK 10 (1005X4)		
R7078	1-208-697-11	METAL CHIP	3.9K 0.50%	1/16W	RB4904	1-234-370-21	RES, NETWORK 22 (1005X4)		
					RB4905	1-234-370-21	RES, NETWORK 22 (1005X4)		

**BG1 D1 D2**  
**G1H G3 H1**

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**H1** **H3** **H4** **U1**

REF NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK				
S106	1-572-595-11	SWITCH, TACTILE (REFLOW TYPE)				<CONNECTOR>					
S107	1-572-595-11	SWITCH, TACTILE (REFLOW TYPE)		* CN401	1-820-297-11	HEADER ASSEMBLY (PRINT PWB)					
*****											
A-1220-319-A	H3 MOUNT		*****	IC401	6-600-502-01	HIC GP1UE26RK0VF					
*****											
<CAPACITOR>											
C320	1-112-781-11	CERAMIC CHIP	1UF	10%	10V	R401	1-216-817-11	METAL CHIP	470	5%	1/10W
C322	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V	R402	1-216-805-11	METAL CHIP	47	5%	1/10W
C323	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V	*****					
<DIODE>											
D302	8-719-085-26	DIODE CL-165HR/SYG-D-T				A-1220-504-C	U1 MOUNT				
D305	8-719-085-26	DIODE CL-165HR/SYG-D-T				*****					
D308	6-500-817-01	DIODE (LED) SML-512UWT86				<CAPACITOR>					
<IC>											
IC320	6-600-447-01	IC TPS853(SONY)			C200	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V	
<TRANSISTOR>											
C201	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V	C202	1-112-781-11	CERAMIC CHIP	1UF	10%	10V
C203	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V	C206	1-100-912-11	CERAMIC CHIP	1UF	10%	25V
C209	1-100-912-11	CERAMIC CHIP	1UF	10%	25V	C215	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
<CONNECTOR>											
Q301	8-729-028-96	TRANSISTOR DTC114EUA-T106									
Q302	8-729-028-96	TRANSISTOR DTC114EUA-T106									
Q303	8-729-028-96	TRANSISTOR DTC114EUA-T106									
Q304	8-729-028-96	TRANSISTOR DTC114EUA-T106									
Q305	8-729-028-96	TRANSISTOR DTC114EUA-T106									
<RESISTOR>											
Q320	6-551-699-01	TRANSISTOR ISA1602AM1TP-1EF			* CN201	1-819-928-11	HEADER ASSENBLY 20P				
<DIODE>											
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W	D203	8-719-423-03	DIODE MA8100			
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W	D204	8-719-423-03	DIODE MA8100			
R303	1-216-821-11	METAL CHIP	1K	5%	1/10W	ET201	1-780-482-11	EARTH TERMINAL			
R304	1-216-821-11	METAL CHIP	1K	5%	1/10W	ET202	1-780-482-11	EARTH TERMINAL			
R305	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	*****					
R321	1-216-839-11	METAL CHIP	33K	5%	1/10W	<JACK>					
R322	1-216-821-11	METAL CHIP	1K	5%	1/10W	J201	1-780-489-11	S TERMINAL BLOCK (RIGHT)			
R323	1-216-833-11	METAL CHIP	10K	5%	1/10W	J202	1-815-325-11	JACK			
R325	1-216-864-11	SHORT CHIP	0			*****					
R326	1-216-847-11	METAL CHIP	150K	5%	1/10W	<RESISTOR>					
R327	1-216-864-11	SHORT CHIP	0			R200	1-218-831-11	METAL CHIP	220	0.50%	1/10W
R328	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R201	1-218-831-11	METAL CHIP	220	0.50%	1/10W
<CAPACITOR>											
A-1220-320-A	H4 MOUNT		*****	R202	1-218-831-11	METAL CHIP	220	0.50%	1/10W		
<RESISTOR>											
C401	1-162-960-11	CERAMIC CHIP	220PF	10.00%	50V	R203	1-216-809-11	METAL CHIP	100	5%	1/10W
C402	1-100-909-11	CERAMIC CHIP	10UF	10%	6.3V	R204	1-218-285-11	METAL CHIP	75	5%	1/10W
<CAPACITOR>											
R205	1-216-809-11	METAL CHIP	100	5%	1/10W	R206	1-216-821-11	METAL CHIP	1K	5%	1/10W
R207	1-216-821-11	METAL CHIP	1K	5%	1/10W	R208	1-218-831-11	METAL CHIP	220	0.50%	1/10W
R209	1-218-831-11	METAL CHIP	220	0.50%	1/10W	*****					

**U1 UT**

The components identified by mark contain confidential information. Strictly follow the instructions whenever the components are repaired and /or replaced.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

REF NO.	PART NO.	DESCRIPTION			REMARK	REF NO.	PART NO.	DESCRIPTION			REMARK
R210	1-218-831-11	METAL CHIP	220	0.50%	1/10W			<COIL>			
R211	1-216-809-11	METAL CHIP	100	5%	1/10W	L8000	1-469-555-21	INDUCTOR	10UH		
R212	1-216-857-11	METAL CHIP	1M	5%	1/10W	L8001	1-469-555-21	INDUCTOR	10UH		
R213	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			<TRANSISTOR>			
R215	1-216-857-11	METAL CHIP	1M	5%	1/10W			Q8000	8-729-028-96	TRANSISTOR DTC114EUA-T106	
R216	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			Q8001	8-729-028-96	TRANSISTOR DTC114EUA-T106	
R218	1-216-864-11	SHORT CHIP	0					Q8002	8-729-028-96	TRANSISTOR DTC114EUA-T106	
R219	1-216-864-11	SHORT CHIP	0					Q8003	6-550-260-01	TRANSISTOR RT1N237M-TP-1	
R220	1-216-864-11	SHORT CHIP	0					Q8004	8-729-028-96	TRANSISTOR DTC114EUA-T106	
		<VARISTOR>									
VD201	1-804-988-21	VARISTOR, CHIP (1608)						Q8005	8-729-054-36	TRANSISTOR UPA1716G-E2	
VD202	1-804-988-21	VARISTOR, CHIP (1608)									
VD203	1-804-988-21	VARISTOR, CHIP (1608)						<RESISTOR>			
VD204	1-804-988-21	VARISTOR, CHIP (1608)						R8000	1-220-214-11	RES-CHIP	430K
VD205	1-804-988-21	VARISTOR, CHIP (1608)						R8001	1-208-855-81	METAL CHIP	47
VD206	1-804-988-21	VARISTOR, CHIP (1608)						R8003	1-220-199-81	RES-CHIP	24K
VD207	1-804-988-21	VARISTOR, CHIP (1608)						R8004	1-220-199-81	RES-CHIP	24K
								R8005	1-208-643-11	METAL CHIP	22
*****											
* A-1313-723-A UT COMPLETE											
*****											
		<CAPACITOR>						R8006	1-208-643-11	METAL CHIP	22
								R8007	1-208-911-11	METAL CHIP	10K
								R8008	1-208-855-81	METAL CHIP	47
								R8009	1-208-855-81	METAL CHIP	47
								R8010	1-208-855-81	METAL CHIP	47
		<CONNECTOR>						R8011	1-208-855-81	METAL CHIP	47
								R8012	1-208-911-11	METAL CHIP	10K
								R8013	1-218-990-81	SHORT CHIP	0
C8000	1-100-567-81	CERAMIC CHIP	0.01UF	10%	25V			R8014	1-208-855-81	METAL CHIP	47
C8001	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V			R8015	1-208-855-81	METAL CHIP	47
C8002	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8016	1-208-855-81	METAL CHIP	47
C8003	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8017	1-208-855-81	METAL CHIP	47
C8004	1-128-994-21	ELECT CHIP	47UF	20%	10V			R8019	1-208-911-11	METAL CHIP	10K
C8005	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V			R8020	1-208-911-11	METAL CHIP	10K
C8006	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8021	1-208-911-11	METAL CHIP	10K
C8007	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8022	1-208-911-11	METAL CHIP	10K
C8008	1-124-779-00	ELECT CHIP	10UF	20.00%	16V			R8023	1-208-855-81	METAL CHIP	47
C8009	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8024	1-218-961-11	RES-CHIP	4.7K
C8010	1-164-854-11	CERAMIC CHIP	15PF	5.00%	50V			R8026	1-208-855-81	METAL CHIP	47
C8011	1-164-854-11	CERAMIC CHIP	15PF	5.00%	50V			R8027	1-208-855-81	METAL CHIP	47
C8012	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8030	1-208-855-81	METAL CHIP	47
C8013	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8031	1-208-855-81	METAL CHIP	47
C8014	1-100-907-11	CERAMIC CHIP	0.1UF	10%	10V			R8034	1-208-691-11	METAL CHIP	2.2K
C8015	1-112-781-11	CERAMIC CHIP	1UF	10%	10V			R8035	1-208-911-11	METAL CHIP	10K
C8016	1-125-777-11	CERAMIC CHIP	0.1UF	10.00%	10V			R8036	1-208-855-81	METAL CHIP	47
		<CONNECTOR>						R8037	1-208-911-11	METAL CHIP	10K
CN8001	1-820-192-11	HEADER ASSEMBLY (PRINT PWB)15P						R8038	1-208-911-11	METAL CHIP	10K
CN8002	1-794-548-21	CONNECTOR, USB(A)						R8039	1-208-911-11	METAL CHIP	10K
CN8003	1-779-936-51	CONNECTOR, FFC/FPC 18P						R8040	1-208-911-11	METAL CHIP	10K
		<DIODE>						R8043	1-218-990-81	SHORT CHIP	0
D8000	6-500-701-01	DIODE PGB1010603NR						R8045	1-218-990-81	SHORT CHIP	0
D8001	6-500-701-01	DIODE PGB1010603NR						R8054	1-218-990-81	SHORT CHIP	0
		<IC>						R8055	1-218-990-81	SHORT CHIP	0
IC8000	8-759-695-94	IC TAR5S33(TE85R)						R8058	1-218-990-81	SHORT CHIP	0
IC8001	6-806-871-01	IC MB90F337PFM-GE1									
IC8002	6-703-175-01	IC PST3629UL						X8000	1-795-537-21	CRYSTAL, VIBRATOR	



**SONY®**

# LCD Colour TV

## Operating Instructions

⚠ Before operating the TV, please read the  
“Safety information” section of this manual.  
Retain this manual for future reference.

**KLV-46V300A  
KLV-40V300A  
KLV-32V300A  
KLV-26V300A**

# BRAVIA

## Introduction

Thank you for choosing this Sony product.  
Before operating the TV, please read this manual  
thoroughly and retain it for future reference.

## WARNING

- To prevent the risk of electric shock, if the AC power cord or plug is damaged, do not insert the plug into the AC power outlet. This plug cannot be used and should be destroyed.
- To prevent the risk of fire or electric shock, do not expose the TV set to rain or moisture.
- Dangerously high voltages are present inside the TV set. Do not open the cabinet. Refer servicing to qualified personnel only.

## Trademark information

- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.



The illustrations used in this manual are of the KLV-32V300A unless otherwise stated.

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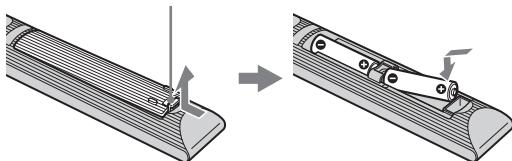
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# Start-up Guide

## Before use

### To insert batteries into the remote

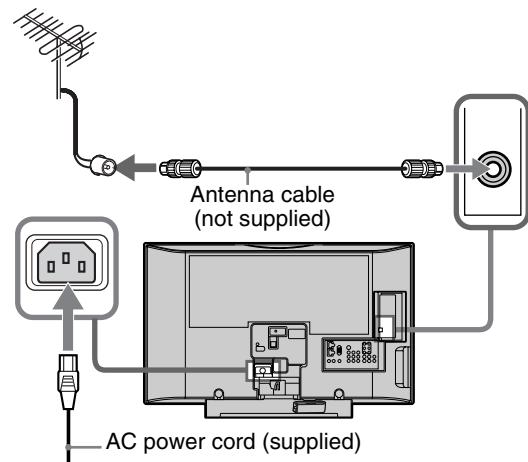
Push and lift the cover to open.



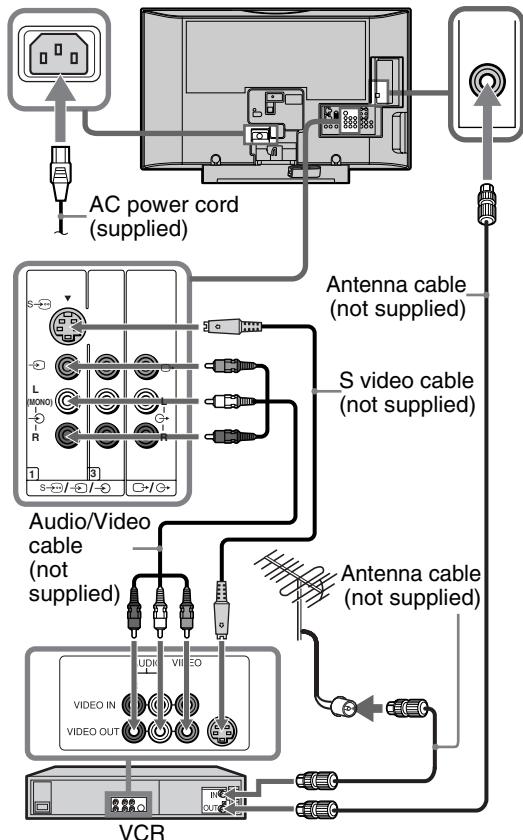
- Observe the correct polarity when inserting batteries.
- Do not use different types of batteries together or mix old and new batteries.
- Dispose of batteries in an environmentally friendly way. Certain regions may regulate the disposal of batteries. Please consult your local authority.
- Handle the remote with care. Do not drop or step on it, or spill liquid of any kind onto it.
- Do not place the remote in a location near a heat source, a place subject to direct sunlight, or a damp room.

## 1: Connecting an antenna/cable/VCR

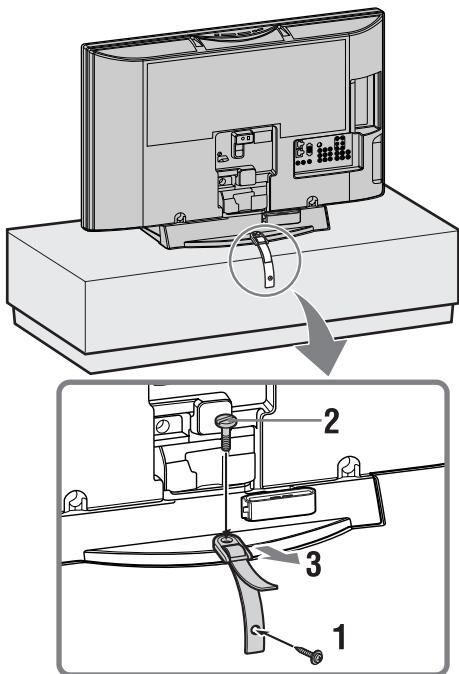
### Connecting an antenna/cable



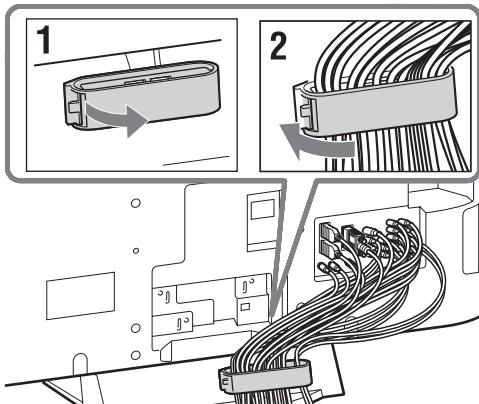
### Connecting an antenna/cable and VCR



## 2: Preventing the TV from toppling over

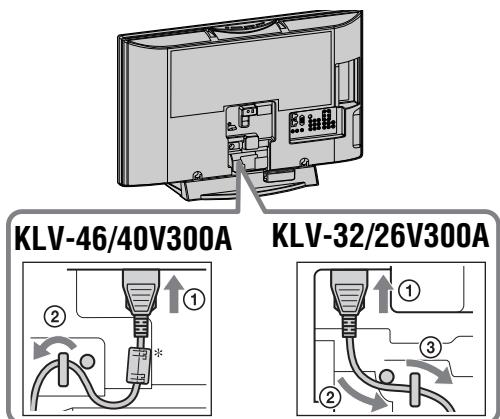


## 3: Bundling the cables



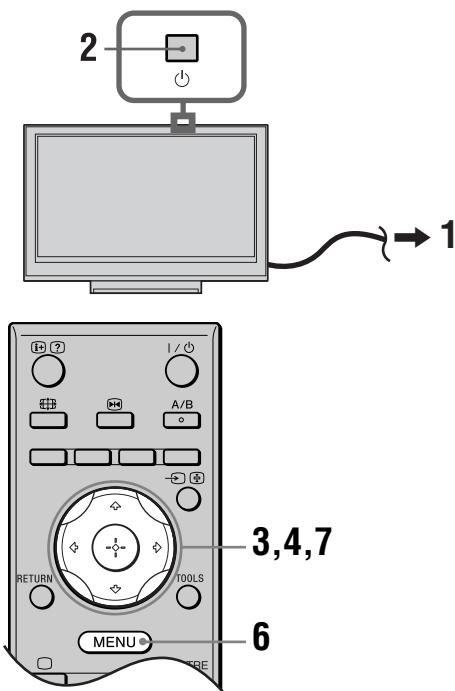
The hook of the cable holder can be opened from either sides depending on attaching position.

## 4: Connecting the AC power cord



\* Type of AC power cord supplied (with or without ferrites core) varies depending on the countries.

## 5: Performing the initial set-up



*Continued*

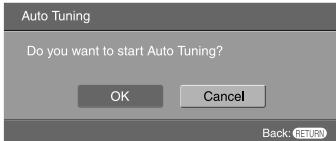
## Selecting the language

- 1 Connect the TV to your AC power outlet (110-240 V AC, 50/60 Hz).
- 2 Press  on the top edge of the TV. When you turn on the TV for the first time, the "Language" menu appears on the screen.
- 3 Press / to select the language displayed on the menu screens, then press .



## Auto-tuning the TV

- 4 Press / to select "OK", then press .



The TV starts searching for all available channels. This may take some time, please be patient and do not press any buttons on the TV or remote.

### If a message appears for you to confirm the antenna connection

No programmes found. Please connect antenna (aerial) and select "Confirm" to start auto-tuning again. If 100 channels are found, auto-tuning is stopped.

- 5 When the "Programme Sorting" menu appears on the screen, follow the steps of "Programme Sorting" (page 30).

If you do not change the order in which the channels are stored on the TV, go to step 6.

- 6 Press MENU to exit.

The TV has now tuned in all the available channels.

- 7 Press / to select the desired setting in "Display this menu next time?" dialogue, then press  to exit.

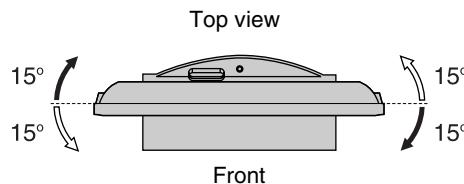


If "Yes" is selected and the TV is turned off by pressing  on the TV, or is disconnected from the AC power outlet, the auto start-up procedure restarts the next time the TV is turned on.

## Adjusting the viewing angle of the TV

This TV can be adjusted within the angles shown below.

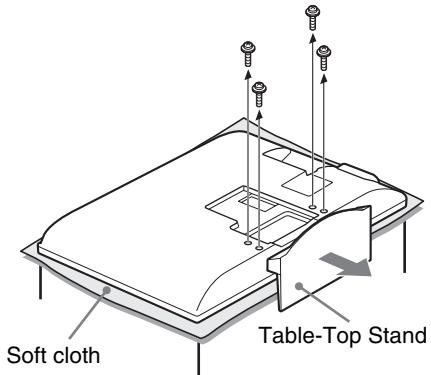
### Adjust the angle left and right (swivel)



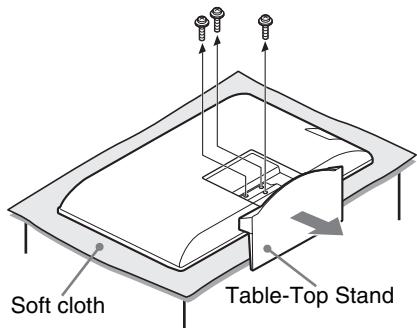
# Detaching the Table-Top Stand from the TV

Do not remove the Table-Top Stand for any reason other than to wall-mount the TV.

## ► For KLV-46V300A/KLV-40V300A



## ► For KLV-32V300A/KLV-26V300A



For bracket installation, refer to the instruction guide provided by the Wall-Mount Bracket model for your TV. Sufficient expertise is required in installing this TV, especially to determine the strength of the wall for withstanding the TV's weight. **For product protection and safety reasons, Sony strongly recommends that you use the Wall-Mount Bracket model designed for your TV and the wall-mounting of your TV should be performed by Sony dealers or licensed contractors.**

# Safety information

## Installation/Set-up

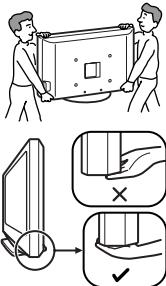
Install and use the TV set in accordance with the instructions below in order to avoid any risk of fire, electrical shock or damage and/or injuries.

### Installation

- The TV set should be installed near an easily accessible AC power outlet.
- Place the TV set on a stable, level surface.
- Only qualified service personnel should carry out wall installations.
- For safety reasons, it is strongly recommended that you use Sony accessories, including:
  - KLV-46V300A/KLV-40V300A/KLV-32V300A:  
Wall-mount bracket SU-WL500
  - KLV-26V300A:  
Wall-mount bracket SU-WL100

### Transporting

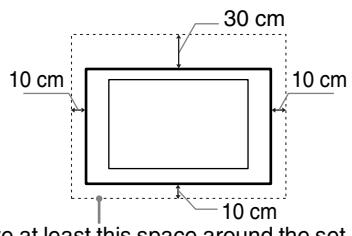
- Before transporting the TV set, disconnect all cables.
- Two or more people are needed to transport a large TV set.
- When transporting the TV set by hand, hold it as shown on the right. Do not put stress on the LCD panel.
- When lifting or moving the TV set, hold it firmly from the bottom.
- When transporting the TV set, do not subject it to jolts or excessive vibration.
- When transporting the TV set for repairs or when moving, pack it using the original carton and packing material.



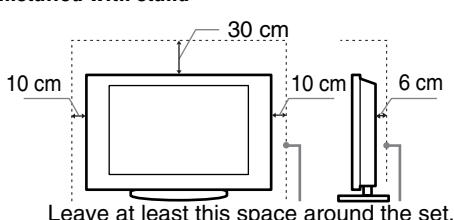
### Ventilation

- Never cover the ventilation holes or insert anything in the cabinet.
- Leave space around the TV set as shown below.
- It is strongly recommended that you use a Sony wall-mount bracket in order to provide adequate air-circulation.

### Installed on the wall



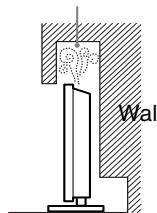
### Installed with stand



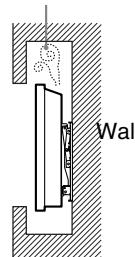
- To ensure proper ventilation and prevent the collection of dirt or dust:

- Do not lay the TV set flat, install upside down, backwards, or sideways.
- Do not place the TV set on a shelf, rug, bed or in a closet.
- Do not cover the TV set with a cloth, such as curtains, or items such as newspapers, etc.
- Do not install the TV set as shown below.

Air circulation is blocked.



Air circulation is blocked.



## AC power cord

Handle the AC power cord and outlet as follows in order to avoid any risk of fire, electrical shock or damage and/or injuries:

- The shape of AC power plug, which is supplied with the TV set, varies depending on the regions. Be sure to connect the appropriate supplied AC power cord with the plug that fits into the AC power outlet.
- Connect the TV set using a three-wire grounding type AC power plug to a AC power outlet with a protective earthing connection.
- Use only Sony supplied AC power cords, not those of other brands.
- Insert the plug fully into the AC power outlet.
- Operate the TV set on a 110-240 V AC supply only.
- When wiring cables, be sure to unplug the AC power cord for your safety and take care not to catch your feet on the cables.
- Disconnect the AC power cord from the AC power outlet before working on or moving the TV set.
- Keep the AC power cord away from heat sources.
- Unplug the AC power plug and clean it regularly. If the plug is covered with dust and it picks up moisture, its insulation may deteriorate, which could result in a fire.

## Notes

- Do not use the supplied AC power cord on any other equipment.
- Do not pinch, bend, or twist the AC power cord excessively. The core conductors may be exposed or broken.
- Do not modify the AC power cord.
- Do not put anything heavy on the AC power cord.
- Do not pull on the AC power cord itself when disconnecting the AC power cord.
- Do not connect too many appliances to the same AC power outlet.
- Do not use a poor fitting AC power outlet.

## **Prohibited Usage**

Do not install/use the TV set in locations, environments or situations such as those listed below, or the TV set may malfunction and cause a fire, electrical shock, damage and/or injuries.

### **Location:**

Outdoors (in direct sunlight), at the seashore, on a ship or other vessel, inside a vehicle, in medical institutions, near flammable objects (candles, etc).

### **Environment:**

Places that are hot, humid, or excessively dusty; where insects may enter; where it might be exposed to mechanical vibration; unstable locations; near water, rain, moisture or smoke.

### **Situation:**

Do not use when your hands are wet, with the cabinet removed, or with attachments not recommended by the manufacturer. Disconnect the TV set from AC power outlet and antenna during lightning storms.

### **Broken pieces:**

- Do not throw anything at the TV set. The screen glass may break by the impact and cause serious injury.
- If the surface of the TV set cracks, do not touch it until you have unplugged the AC power cord. Otherwise electric shock may result.

### **When not in use**

- If you will not be using the TV set for several days, the TV set should be disconnected from the AC power for environmental and safety reasons.
- As the TV set is not disconnected from the AC power when the TV set is just turned off, pull the plug from the AC power outlet to disconnect the TV set completely.
- However, some TV sets may have features that require the TV set to be left in standby to work correctly.

### **For children**

- Do not allow children to climb on the TV set.
- Keep small accessories out of the reach of children, so that they are not mistakenly swallowed.

### **If the following problems occur...**

**Turn off** the TV set and unplug the AC power cord immediately if any of the following problems occur. Ask your dealer or Sony service centre to have it checked by qualified service personnel.

#### **When:**

- AC power cord is damaged.
- Poor fitting of AC power outlet.
- TV set is damaged by being dropped, hit or having something thrown at it.
- Any liquid or solid object falls through openings in the cabinet.

## **Precautions**

### **Viewing the TV**

- View the TV in moderate light, as viewing the TV in poor light or during long period of time, strains your eyes.
- When using headphones, adjust the volume so as to avoid excessive levels, as hearing damage may result.

### **LCD Screen**

- Although the LCD screen is made with high-precision technology and 99.99% or more of the pixels are effective, black dots may appear or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is a structural property of the LCD screen and is not a malfunction.
- Do not push or scratch the front filter, or place objects on top of this TV set. The image may be uneven or the LCD screen may be damaged.
- If this TV set is used in a cold place, a smear may occur in the picture or the picture may become dark. This does not indicate a failure. These phenomena disappear as the temperature rises.
- Ghosting may occur when still pictures are displayed continuously. It may disappear after a few moments.
- The screen and cabinet get warm when this TV set is in use. This is not a malfunction.
- The LCD screen contains a small amount of liquid crystal and mercury. The fluorescent tube used in this TV set also contains mercury. Follow your local ordinances and regulations for disposal.

### **Handling and cleaning the screen surface/cabinet of the TV set**

Be sure to unplug the AC power cord connected to the TV set from AC power outlet before cleaning.

To avoid material degradation or screen coating degradation, observe the following precautions.

- To remove dust from the screen surface/cabinet, wipe gently with a soft cloth. If dust is persistent, wipe with a soft cloth slightly moistened with a diluted mild detergent solution.
- Never use any type of abrasive pad, alkaline/acid cleaner, scouring powder, or volatile solvent, such as alcohol, benzene, thinner or insecticide. Using such materials or maintaining prolonged contact with rubber or vinyl materials may result in damage to the screen surface and cabinet material.
- When adjusting the angle of the TV set, move it slowly so as to prevent the TV set from moving or slipping off from its table stand.

### **Optional Equipment**

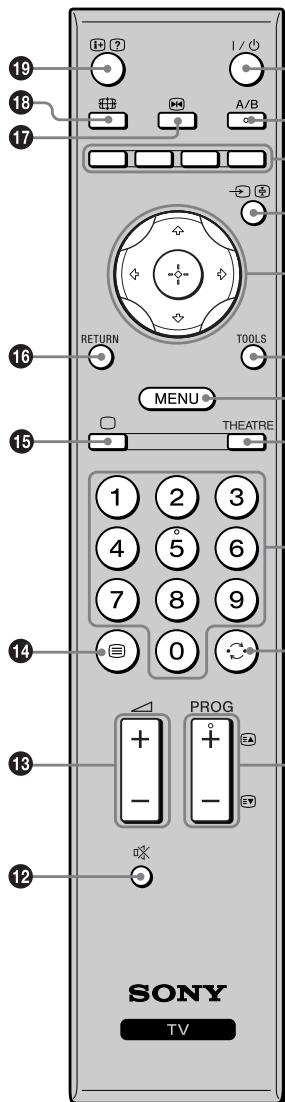
Keep optional components or any equipment emitting electromagnetic radiation away from the TV set. Otherwise picture distortion and/or noisy sound may occur.

### **Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)**

This symbol is on the remote control.



# Overview of the remote



## 1 I/Ø – TV standby

Turns the TV on and off from standby mode.

## 2 A/B – Dual Sound (page 23)

## 3 Coloured buttons (page 12)

## 4 ☰/ (?) – Input select / Text hold

- Displays the connected equipment list and selects the input source (page 17).
- In Text mode (page 12): Holds the current page.

## 5 ☰/Δ/⇨/⇨/+ (page 12, 19)

## 6 TOOLS (page 13, 17)

Enables you to access various viewing options and change/make adjustments according to the source and screen mode.

## 7 MENU (page 19)

## 8 THEATRE

You can set Theatre Mode on or off. When Theatre Mode is set to on, the optimum audio output (if the TV is connected with an audio system using an HDMI cable) and picture quality for film videos are automatically set.



If you turn the TV off, Theatre Mode is also turned off.

## 9 Number buttons

- Selects channels. For channel numbers 10 and above, enter the second digit quickly (page 30).
- In Text mode: Enters the three digit page number to select the page.

## 10 ☰ – Previous channel

Returns to the previous channel watched (for more than five seconds).

## 11 PROG +/-/ (?)/ (?)

- Selects the next (+) or previous (-) channel (page 12).
- In Text mode (page 12): Selects the next (?) or previous (?) page.

## 12 ☰ – Mute (page 12, 17)

## 13 ☰ +/- – Volume (page 17)

## 14 ☰ – Text (page 12)

## 15 ☐ – TV mode (page 17)

Switches to a TV display when displaying external input.

## 16 RETURN

Returns to the previous screen of any displayed menu.

## 17 ☰ – Picture freeze (page 12)

Freezes the TV picture.

## 18 ☰ – Wide mode (page 13)

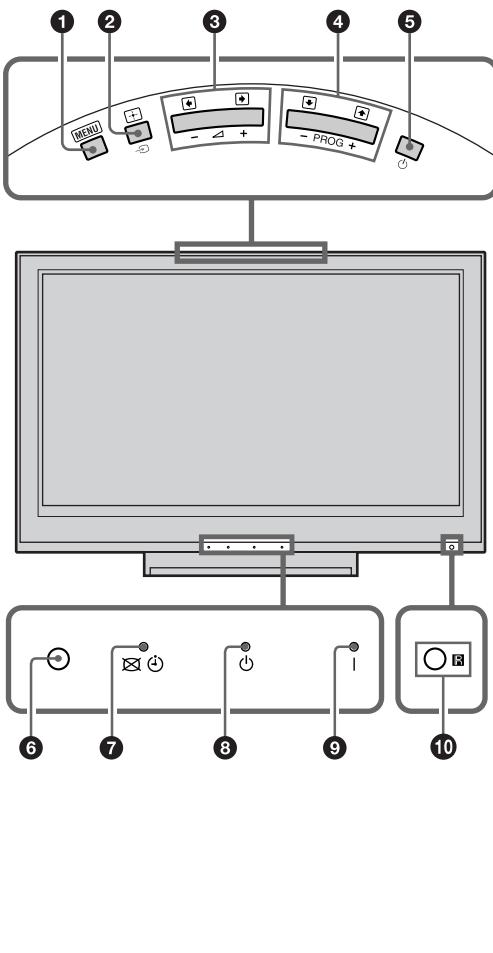
## 19 ☰/ (?) – Info / Text reveal

- Displays information such as current channel number and screen mode.
- In Text mode (page 12): Reveals hidden information (e.g. answers to a quiz).



The number 5, PROG + and A/B buttons have tactile dots. Use the tactile dots as references when operating the TV.

# Overview of the TV buttons and indicators



## ① MENU (page 19)

## ② – Input select / OK

- Displays the connected equipment list and selects the input source (page 17).
- In TV menu: Selects the menu or option, and confirms the setting.

## ③ – Volume

- Increases (+) or decreases (-) the volume.
- In TV menu: Moves through the options right () or left ()

## ④ PROG – Channel selection

- Selects the next (+) or previous (-) channel.
- In TV menu: Moves through the options up () or down ()

## ⑤ – Power

Turns the TV on or off.



To disconnect the TV from the AC power completely, pull the plug from the AC power outlet.

## ⑥ Light sensor (page 28)

Do not put anything over the sensor, as its function may be affected.

## ⑦ – Picture Off / Timer indicator

- Lights up in green when the picture is turned off (page 28).
- Lights up in amber when the timer is set (page 27).

## ⑧ – Standby indicator

Lights up in red when the TV is in standby mode.

## ⑨ – Power indicator

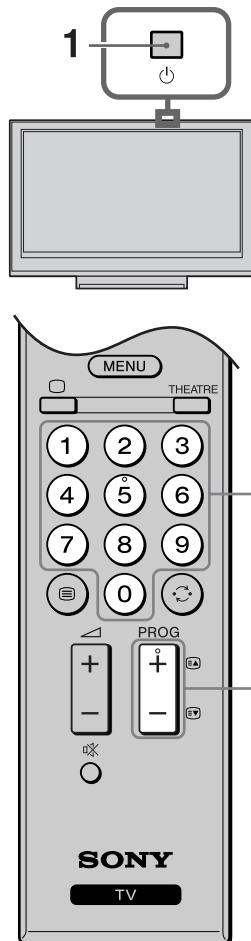
- Lights up in green when the TV is turned on.
- Flashes while the remote is being operated.

## ⑩ – Remote sensor

Receives IR signals from the remote.

## Watching TV

# Watching TV



- 1** Press on the top edge of the TV to turn on the TV.

When the TV is in standby mode (the (standby) indicator on the TV front panel is red), press on the remote to turn on the TV.

- 2** Press the number buttons or PROG +/- to select a TV channel.

To select channel numbers 10 and above using the number buttons, enter the second digit quickly.

## Additional operations

To	Press
Freeze the picture (Picture freeze)	 Press once to remove the small window. Press again to return to single picture mode.
	 This function is not available for Twin Picture and PC input source.
Access the Programme index table	MENU. Select "Programme List" by pressing /, then press . Next, select the desired channel by pressing /, then press .
Mute the sound	 Press again to restore.
Turn on the TV without sound from standby mode	

## To access Text

Press . Each time you press , the display changes cyclically as follows:

Text → Text over the TV picture (mix mode) → No Text (exit the Text service)  
To select a page, press the number buttons or /.  
To hold a page, press /.  
To reveal hidden information, press /.



Text language displays can be either English, Persian or French depending on your broadcast signal.



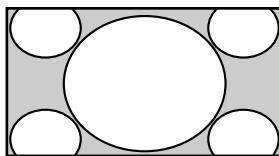
When four coloured items appear at the bottom of the Text page, Fastext is available. Fastext allows you to access pages quickly and easily. Press the corresponding coloured button to access the page.

## To change the wide mode manually

Press  repeatedly to select the desired wide mode.

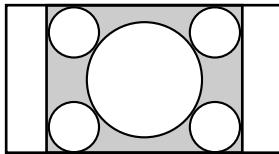
### For TV, Video, HD/DVD or HDMI (other than PC Input)

#### Wide Zoom\*



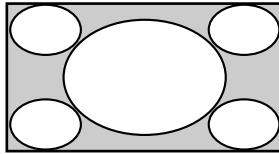
Enlarges the centre portion of the picture. The left and right edges of the picture are stretched to fill the 16:9 screen.

#### Normal



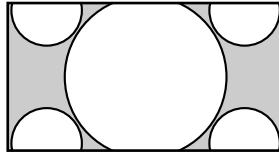
Displays the 4:3 picture in its original size. Side bars are shown to fill the 16:9 screen.

#### Full



Stretches the 4:3 picture horizontally, to fill the 16:9 screen.

#### Zoom\*



Displays cinematic (letter box format) broadcasts in the correct proportions.

\* Parts of the top and bottom of the picture may be cut off.



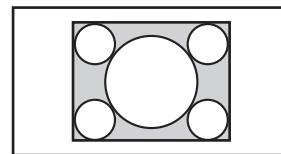
You cannot select "Normal" for HD signal source pictures.



- When "Auto Wide" is set to "On", the TV will automatically select the best mode to suit the input from an external equipment (page 24).
- You can adjust the position of the picture when selecting "Zoom". Press  $\wedge/\vee$  to move up or down the picture (e.g. to read subtitles).

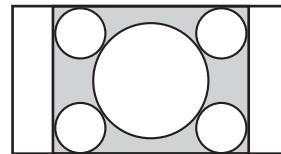
### For PC Input

#### Normal



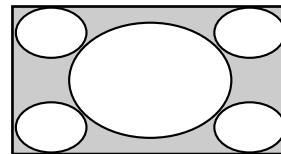
Displays the picture in its original pixel size. Bars are shown at the top, bottom, and both sides for small picture.

#### Full 1



Stretches the original picture to fill the screen vertically.

#### Full 2



Stretches the Full 1 picture horizontally to fill the 16:9 screen.

## Using the Tools menu

Press TOOLS to display the following options when viewing a TV programme.

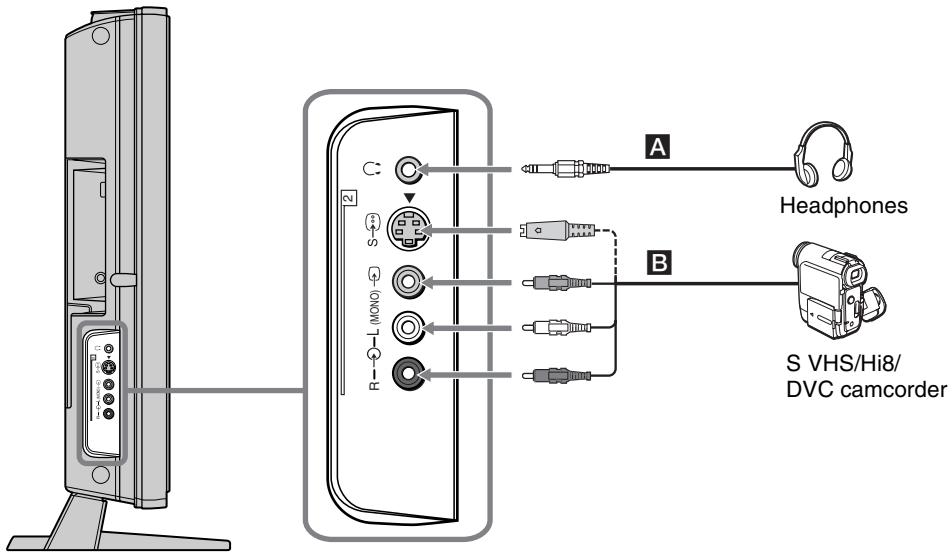
Options	Description
Close	Closes the Tools menu.
Picture Mode	See page 20.
Sound Mode	See page 22.
Speaker	See page 26.
Volume	Adjusts the volume of the headphones.
Sleep Timer	See page 27.
Power Saving	See page 28.

## Using Optional Equipment

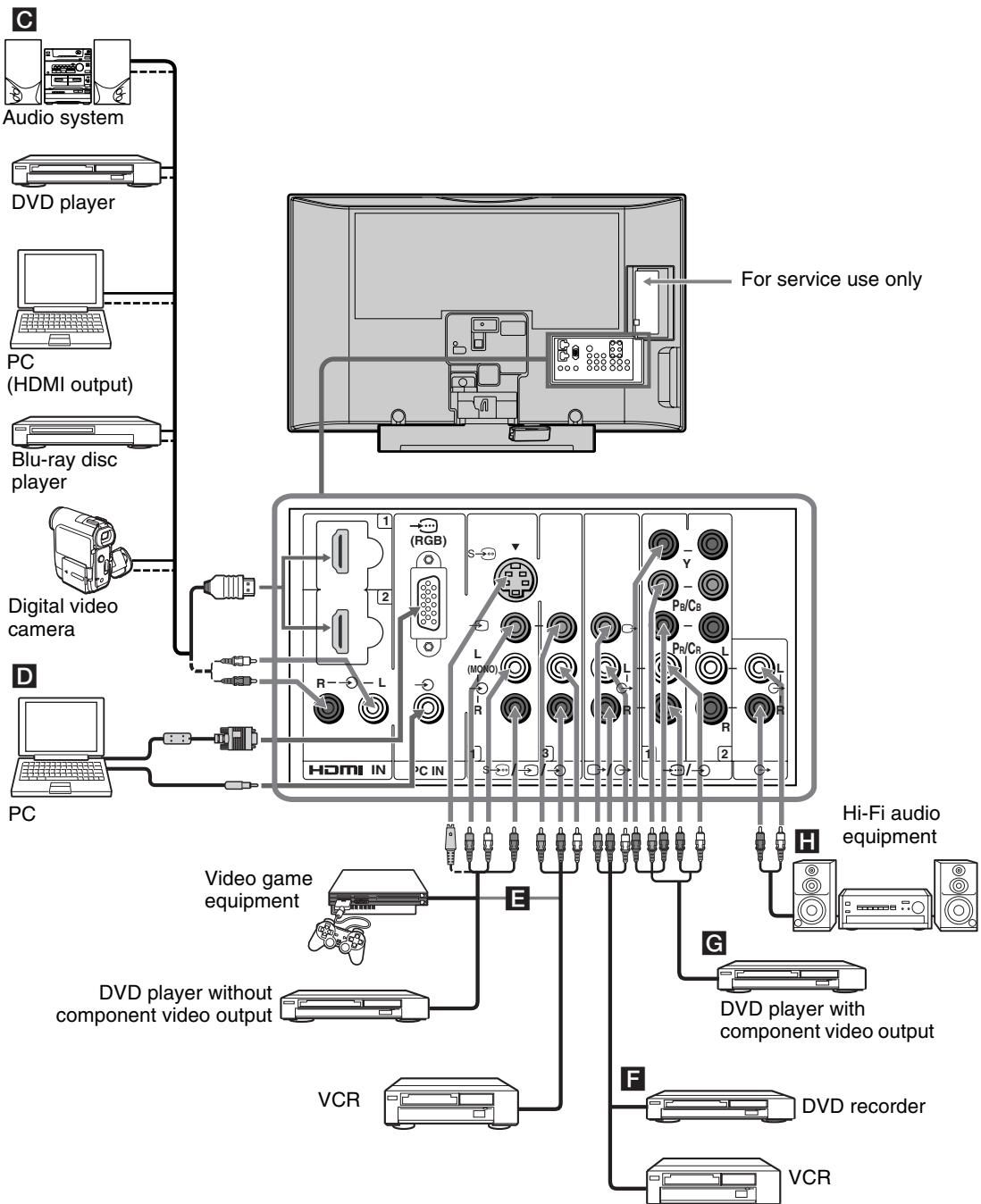
# Connecting optional equipment

You can connect a wide range of optional equipment to your TV.

### Connecting to the TV (side)



## Connecting to the TV (rear)



*Continued*

Jacks	Input symbol on screen	Description
<b>A</b>		Connect to the  jack to listen to sound from the TV on headphones.
<b>B</b> S2 or 2, and 2	S Video 2 or  Video 2	Connect to the S video jack S2 or the video jack 2, and the audio jacks 2. To avoid picture noise, do not connect the camcorder to the video jack 2 and the S video jack S2 at the same time. If you connect mono equipment, connect to the L(MONO) jack 2.
<b>C</b> HDMI IN 1 or 2	HDMI 1 or  HDMI 2	Connect to the HDMI IN 1 or 2 jack if the equipment has an HDMI jack. The digital video and audio signals are input from the equipment. In addition, when HDMI control compatible equipment is connected, communication with the connected equipment is supported. Refer to page 27 to set-up this communication. If the equipment has a DVI jack, connect the DVI jack to the HDMI IN 2 jack through a DVI - HDMI adaptor interface (not supplied), and connect the equipment's audio out jacks to the audio in the HDMI IN 2 jacks. <ul style="list-style-type: none"><li>The HDMI jacks only support the following video inputs: 480i, 480p, 576i, 576p, 720p (50/60 Hz), 1080i (50/60 Hz) and 1080p (50/60 Hz).</li><li>Be sure to use only an HDMI cable that bears the HDMI logo (recommended Sony HDMI cable).</li><li>When connecting an audio system with HDMI jack, be sure to also connect to the audio output jacks  (refer <b>H</b> in page 15) to listen to the sound from the TV on audio system.</li></ul>
<b>D</b> PC IN	PC	Connect to the PC IN  (RGB) jack and the audio jack . It is recommended to use a PC cable with ferrites.
<b>E</b> S1 or 1 or 3, and 1 or 3	S Video 1 or  Video 1 or  Video 3	Connect to the S video jack S1 or the video jack 1 or 3, and the audio jacks 1 or 3. To avoid picture noise, do not connect the camcorder to the video jack 1 and the S video jack S1 at the same time. If you connect mono equipment, connect to the L(MONO) jack 1 or 3.
<b>F</b> /		Connect to the video output jack  to record the image from the TV. Connect to the audio output jacks  to record the sound from the TV on DVD recorder or VCR. To turn off the sound of the TV speakers, set "Speaker" to "Audio System" (page 26). If you connect mono equipment, connect to the L jack .  The monitor output jacks cannot support HD/DVD, HDMI and PC signals source pictures, also digital audio signal for sound.
<b>G</b> /1 or 2	HD/DVD 1 or HD/DVD 2	Connect to the component jacks and the audio jacks 1 or 2. For better picture quality, component connection is recommended if your DVD player has a component video output.
<b>H</b>		Connect to the audio output jacks  to listen to the sound from the TV on Hi-Fi audio equipment. To turn off the sound of the TV speakers, set "Speaker" to "Audio System" (page 26).

# Viewing pictures from the connected equipment

Turn on the connected equipment, then press / to display the connected equipment list. Press / to select the desired input source, then press . (The highlighted item is selected if 2 seconds pass without any operation after pressing /.) When the input source is set to "Skip" in the "Video Labels" under the "AV Set-up" menu (page 26), that input does not appear in the list.



Press / on the top edge of the TV to display the connected equipment list and select the desired input source. You can also press / to select the desired input source. Then wait for 2 seconds to display the selected input source.

## Additional operations

To	Press
Return to normal TV mode	
Change the volume of the connected HDMI control compatible audio system	+/-
Mute the sound of the connected HDMI control compatible audio system	 Press again to restore.

## Using the Tools menu

Press TOOLS to display the following options when viewing pictures from connected equipment.

Options	Description
Close	Closes the Tools menu.
Picture Mode (except PC input mode)	See page 20.
Display Mode (in PC input mode only)	See page 20.
Sound Mode	See page 22.
Speaker	See page 26.

Options	Description
Twin Picture (except PC input mode)	See page 18.
PIP (in PC input mode only)	See page 18.
Single Picture (in Twin Picture and PIP mode only)	Returns to single picture mode.
Audio Swap (in PIP mode only)	See page 18.
Auto Adjustment (in PC input mode (except HDMI PC input) only)	See page 29.
Horizontal Shift (in PC input mode only)	See page 29.
Vertical Shift (in PC input mode only)	See page 29.
Volume	Adjusts the volume of the headphones.
Sleep Timer (except PC input mode)	See page 27.
Power Saving	See page 28.



The options displayed vary depending on the input source.

*Continued*

## To view two pictures simultaneously - Twin Picture

You can view two pictures (external input and TV programme) on the screen simultaneously. Connect the optional equipment (page 14, 15), and make sure that images from the equipment appear on the screen (page 17).



- This function is not available for a PC input source.
- You cannot change the size of the pictures.
- The picture on the right cannot be displayed and no sound when the viewed external input is Video 1 or S Video 1, Video 2 or S Video 2, or Video 3.
- The picture and sound from the monitor output jacks (refer **F** in page 15) will follow the left picture. However, if audio output jacks (refer **H** in page 15) are connected, the sound will follow TV speaker.

**1** Press TOOLS to display the Tools menu.

**2** Press to select "Twin Picture", then press .

The picture from connected equipment is displayed on the left and the TV programme is displayed on the right.

**3** Press number buttons or PROG +/- to select the TV channel.

### To return to single picture mode

Press or RETURN.



The picture framed in green is audible. You can switch the audible picture by pressing .

## To view two pictures simultaneously - PIP (Picture in Picture)

You can view two pictures (PC input and TV programme) on the screen simultaneously. Connect a PC (page 15), and make sure that images from a PC appear on the screen (page 17).



- You cannot display resolutions higher than WXGA (1360 × 768 pixels).
- "Power Management" is not available in PIP mode (page 29).
- The sound will follow TV speaker when audio output jacks (refer **H** in page 15) are connected.

**1** Press TOOLS to display the Tools menu.

**2** Press to select "PIP", then press .

The picture from the connected PC is displayed with full size and the TV programme is displayed on the bottom right corner.

You can use / to move the TV programme screen position.

**3** Press number buttons or PROG +/- to select the TV channel.

### To return to single picture mode

Press RETURN.



You can switch the audible picture by selecting "Audio Swap" from the Tools menu.

## Using HDMI control

The HDMI control function allows equipment to control each other using HDMI CEC (Consumer Electronics Control) specified by HDMI.

You can perform interlocked control operations between Sony HDMI control compatible equipment such as a TV, DVD recorder with hard disk and audio system by connecting the equipment with HDMI cables.

Be sure to correctly connect and set the compatible equipment to use the HDMI control function.

## To connect the HDMI control compatible equipment

Connect the compatible equipment and the TV with an HDMI cable. When connecting an audio system with HDMI jack, be sure to also connect to the audio output jacks (refer **H** in page 15) to listen to the sound from the TV on audio system. For details, see page 15.

## To make the HDMI control settings

HDMI control must be set on both the TV side and the connected equipment side. See "HDMI Set-up" (page 27) for the TV side settings. See the operating instructions of the connected equipment for setting details.

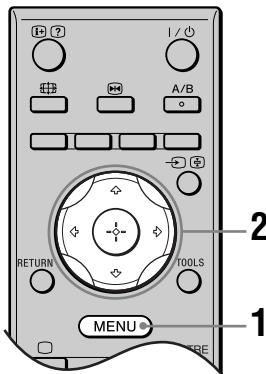
## HDMI interlock control functions

- Turns the connected equipment off automatically when the TV is turned off.
- Turns the TV on automatically when the connected equipment is turned on. TV automatically switches to the input in which the equipment is connected when the equipment starts to play.
- If you turn on a connected audio system while the TV is on, the input switches to the audio from the audio system.
- Adjusts the volume and mutes the sound of a connected audio system.

## Using MENU Functions

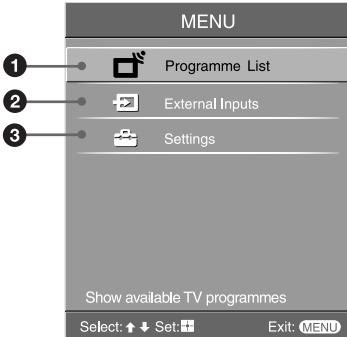
# Navigating through menus

“MENU” allows you to enjoy various convenient features of this TV. You can easily select channels or inputs sources and change the settings for your TV.



- 1 Press MENU.
- 2 Press  $\uparrow/\downarrow$  to select an option, then press  $\oplus$ .

To exit the menu, press MENU.



### ① Programme List

Displays available TV channels.

- To watch the desired channel, select the channel, then press  $\oplus$ .
- To assign a label to a channel, select “Edit Programme Labels”, then see page 30.

### ② External Inputs

Selects equipment connected to your TV.

- To watch the desired external input, select the input source, then press  $\oplus$ .
- To assign a label to an external input, select “Edit Video Labels”, then see page 26.
- To see a list of the connected HDMI control compatible equipment, select “HDMI Device Selection”.

### ③ Settings

Displays the “Settings” menu where most of the advanced settings and adjustments are performed.

- 1 Press  $\uparrow/\downarrow$  to select a menu icon, then press  $\oplus$ .

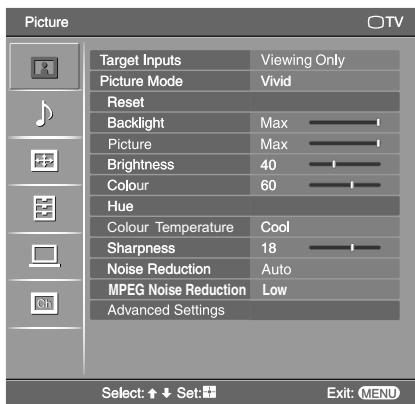
- 2 Press  $\uparrow/\downarrow/\leftarrow/\rightarrow$  to select an option or adjust a setting, then press  $\oplus$ .

For details about settings, see page 20 to 31.



The options you can adjust vary depending on the situation. Unavailable options are greyed out or not displayed.

# Picture menu



You can select the options listed below on the “Picture” menu. To select options in “Settings”, refer to “Navigating through menus” (page 19).

## Target Inputs

Selects whether to apply settings made in the “Picture” menu to all inputs, or only to the input currently being watched.

“All”: Applies settings to all inputs.

“Viewing Only”: Applies settings only to the current input.



“Target Inputs” is not available for a PC input source.

## Picture Mode

Selects the picture mode except for PC input source.

“Vivid”: For enhanced picture contrast and sharpness.

“Standard”: For standard picture. Recommended for home entertainment.

“Cinema”: For optimum picture quality of film videos.

## Display Mode

Selects the display mode for PC input source.

“Video”: For video images.

“Text”: For text, charts or tables.



The options displayed vary depending on the input source.

## Reset

Resets all the “Picture” settings except “Target Inputs”, “Picture Mode” and “Display Mode” to the factory settings.

## Backlight

Adjusts the brightness of the backlight.



“Backlight” is not available when you set “Power Saving” to “High” (page 28).

## Picture

Increases or decreases picture contrast.

## Brightness

Brightens or darkens the picture.

## Colour

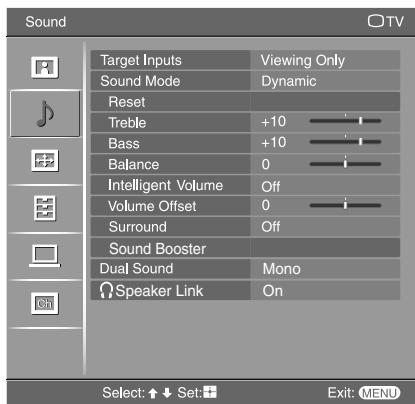
Increases or decreases colour intensity.



“Colour” is not available for a PC input source.

<b>Hue</b>	Increases or decreases the green tones and red tones.  “Hue” can only be adjusted for an NTSC colour system (e.g., U.S.A. video tapes).
<b>Colour Temperature</b>	Adjusts the whiteness of the picture. “Cool”: Gives the white colours a blue tint. “Neutral”: Gives the white colours a neutral tint. “Warm 1”/“Warm 2”: Gives the white colours a red tint. “Warm 2” gives a redder tint than “Warm 1”.  “Warm 1” and “Warm 2” are not available when “Picture Mode” is set to “Vivid”.
<b>Sharpness</b>	Sharpens or softens the picture.  “Sharpness” is not available for a PC input source.
<b>Noise Reduction</b>	Reduces the picture noise (snowy picture) in a weak broadcast signal. “Auto”: Automatically reduces the picture noise. “High”/“Medium”/“Low”: Modifies the effect of the noise reduction. “Off”: Turns off the “Noise Reduction” feature.  <ul style="list-style-type: none"> <li>“Auto” is not available when watching external inputs or when “Target Inputs” is set to “All”.</li> <li>“Noise Reduction” is not available for a PC input source.</li> </ul>
<b>MPEG Noise Reduction</b>	Reduces the picture noise in MPEG-compressed video. Choose either “High”, “Medium”, “Low” or “Off”.  “MPEG Noise Reduction” is not available for a PC input source.
<b>Advanced Settings</b>	Customizes the “Picture” function in more detail. When you set “Picture Mode” to “Standard” or “Cinema”, you can set/change these settings. “Reset”: Resets all the advanced settings to the factory settings. “Black Corrector”: Enhances black areas of the picture for stronger contrast. “Adv. Contrast Enhancer”: Automatically adjusts “Backlight” and “Picture” to the most suitable settings judging from the brightness of the screen. This setting is especially effective for dark images scenes. It will increase the contrast distinction of the darker picture scenes. “Gamma”: Adjusts the balance between bright and dark areas of the picture. “Clear White”: Emphasizes white colours. “Live Colour”: Makes colours more vivid. “Colour Space”: Changes the colour reproduction gamut. “Wide” reproduces the vivid colour and “Normal” reproduces the standard colour.  <ul style="list-style-type: none"> <li>“Advanced Settings” is not available for a PC input source or when “Picture Mode” is set to “Vivid”.</li> <li>“Colour Space” is not available for KLV-26V300A.</li> <li>“Live Colour” is not available when “Colour Space” is set to “Normal”.</li> </ul>

# Sound menu



You can select the options listed below on the “Sound” menu. To select options in “Settings”, refer to “Navigating through menus” (page 19).

## Target Inputs

Selects whether to apply settings made in the “Sound” menu to all inputs, or only to the input currently being watched.

“All”: Applies settings to all inputs.

“Viewing Only”: Applies settings only to the current input.

## Sound Mode

“Dynamic”: Enhances treble and bass.

“Standard”: For standard sound. Recommended for home entertainment.

“Custom”: Flat response.

## Reset

Resets all the “Sound” settings except “Target Inputs”, “Sound Mode”, “Dual Sound” and “Speaker Link” to the factory settings.

## Treble

Adjusts higher-pitched sounds.

## Bass

Adjusts lower-pitched sounds.

## Balance

Emphasizes left or right speaker balance.

## Intelligent Volume

Keeps a constant volume level even when volume level gaps occur (e.g., adverts tend to be louder than programmes).

## Volume Offset

Adjusts the volume level of the current input relative to other inputs, when “Target Inputs” is set to “Viewing Only”.

## Surround

“S-FORCE Front Surround”: Available for normal stereo broadcast and 5.1ch digital broadcast surround audio, and the audio input from connected equipment.

“Simulated Stereo”: Adds a surround-like effect to mono programmes.

“Off”: Converts and reproduces 5.1ch and other digital broadcast surround audio as normal stereo audio (2ch). Reproduces the original audio of other broadcasts as it is.

## Sound Booster

Gives sound more impact by compensating for phase effects in speakers.

Choose either “High”, “Low” or “Off”.



“Sound Booster” is available when “Sound Mode” is set to “Custom”.

**Dual Sound**

Selects the sound from the speaker for a stereo or bilingual broadcast.  
The selection varies, depending on the Broadcasting.

Broadcasting	Selection
NICAM stereo	Stereo (stereo sound) Mono (regular sound)
NICAM bilingual	Main (main sound) Sub (sub sound) Mono (regular sound)
NICAM monaural	Main (main sound) Mono (regular sound)
A2 (German) stereo	Stereo (stereo sound) Mono (regular sound)
A2 (German) bilingual	Main (main sound) Sub (sub sound)



- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM programme, select “Mono”. The sound becomes monaural, but the noise is reduced.
- The “Dual Sound” setting is memorized for each programme position.
- You cannot receive a stereo broadcast signal when “Mono” is selected for the programme position.
- You cannot receive stereo or dual sound when “Low” or “High” is selected in “Audio Filter” (page 31).



- NICAM is receivable in following countries/regions. Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
- A2 (German) is receivable in following countries/regions. Australia, Malaysia, Thailand, etc.
- If you select other equipment connected to the TV, set “Dual Sound” to “Stereo”, “Main” or “Sub”. However, when the external equipment connected to the HDMI jack is selected, this is fixed to “Stereo”, except HDMI IN 2 with DVI analogue sound input.

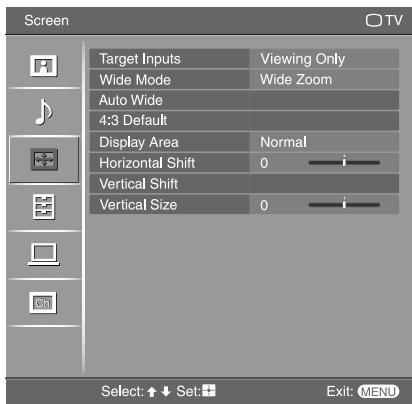
**Speaker Link**

Turns the TV's internal speakers on/off when headphones are connected.

“On”: Sound is output only from headphones.

“Off”: Sound is output from both the TV and headphones.

# Screen menu



You can select the options listed below on the “Screen” menu. To select options in “Settings”, refer to “Navigating through menus” (page 19).

## Target Inputs

Selects whether to apply settings made in the “Screen” menu to all inputs, or only to the input currently being watched.  
“All”: Applies settings to all inputs.  
“Viewing Only”: Applies settings only to the current input.

## Wide Mode

For details about the wide mode, see “To change the wide mode manually” (page 13).

## Auto Wide

Automatically changes the wide mode according to the input signal from an external equipment. To keep your setting, select “Off”.



“Auto Wide” is not available when watching TV programmes.



Even if “Auto Wide” is set to “On” or “Off”, you can always modify the format of the screen by pressing repeatedly.

## 4:3 Default

Selects the default screen mode for use with 4:3 broadcasts.

“Wide Zoom”: Displays conventional 4:3 broadcasts with an imitation wide screen effect.

“Normal”: Displays conventional 4:3 broadcasts in the correct proportions.

“Off”: Keeps the current “Wide Mode” setting when the channel or input is changed.



- “4:3 Default” is available only if “Auto Wide” is set to “On”.

- “4:3 Default” is not available when watching TV programmes or for a HD input signal.

## Display Area

Adjusts the screen area for displaying the picture.

“Normal”: Displays the picture in the original size.

“-1”/-“2”: Enlarges the picture to hide the edge of the picture.

## Horizontal Shift

Adjusts the horizontal position of the picture.

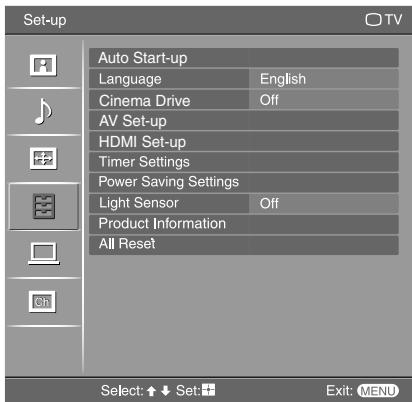
## Vertical Shift

Adjusts the vertical position of the picture when “Wide Mode” is set to “Zoom”.

## Vertical Size

Adjusts the vertical size of the picture when “Wide Mode” is set to “Wide Zoom” or “Zoom”.

# Set-up menu



You can select the options listed below on the “Set-up” menu. To select options in “Settings”, refer to “Navigating through menus” (page 19).

## Auto Start-up

Starts the initial set-up to select the language and tune in all available channels. Usually, you do not need to do this operation because the language will have been selected and channels already tuned when the TV was first installed (page 5). However, this option allows you to repeat the process (e.g., to retune the TV after moving house, or to search for new channels that have been launched by broadcasters).

## Language

Selects the language in which the menus are displayed.

## Cinema Drive

Provides smoother picture movement when playing DVD or VCR images taken on film, reducing picture blur and graininess.

**“Auto”:** Provides smoother picture movement than the original film video. Use this setting for standard use.

**“Off”:** Turns off the “Cinema Drive” feature.

- If the image contains irregular signals or too much noise, “Cinema Drive” will be automatically turned off even if “Auto” is selected.
- “Cinema Drive” is not available for a PC input source.

*Continued*

## AV Set-up

### Video Labels

Assigns a name to any equipment connected to the side and rear jacks. The name will be displayed briefly on the screen when the equipment is selected. You can skip input signals from connected equipment that you do not want displayed on the screen.

**1** Press  $\uparrow/\downarrow$  to select the desired input source, then press  $\oplus$ .

**2** Press  $\uparrow/\downarrow$  to select the desired option below, then press  $\oplus$ .

**Equipment labels:** Uses one of the preset labels to assign a name to connected equipment.

**“Edit”:** Creates your own label. Follow steps 2 to 4 of “Programme Labels” (page 30).

**“Skip”:** Skips an unnecessary input source.

### Auto S Video

Selects the input signal from S video jacks  $S-\ominus\ominus$  1 or 2 when  $S-\ominus\ominus/\ominus\ominus$  1 or 2 jacks are both connected.

**“On”:** Switches automatically between the S video jack and the composite video jacks depending on the cable connection.

**“Off”:** Activates the composite video jacks.

### Speaker

Turns on/off the TV’s internal speakers.

**“TV Speaker”:** The TV speakers are turned on in order to listen to the TV’s sound through the TV speakers.

**“Audio System”:** The TV speakers are turned off in order to listen to the TV’s sound only through your external audio equipment connected to the audio output jacks.

When connected with an HDMI control compatible equipment, you can turn the connected equipment on interlocked with the TV. This setting must be made after connecting the equipment.

### Audio Out

**“Variable”:** The audio output from your audio system can be controlled by the TV’s remote.

**“Fixed”:** The audio output of the TV is fixed. Use your audio receiver’s volume control to adjust the volume (and other audio settings) through your audio system.



“Audio Out” is not available for audio system connected to the TV using the HDMI jacks.

### Colour System

Selects the colour system (“Auto”, “PAL”, “SECAM”, “NTSC3.58”, “NTSC4.43” or “PAL60”) according to the composite video signal from the input source.

---

<b>HDMI Set-up</b>	This is used to set the HDMI control compatible equipment connected to the HDMI jacks. Note that the interlock setting must also be made on the connected HDMI control compatible equipment side.
--------------------	---

**HDMI Control**

Sets whether to interlock the HDMI control compatible equipment and the TV.  
When set to “On”, the following menu items can be performed.

**Auto Devices Off**

When this is set to “On”, the HDMI control compatible equipment turns off automatically when the TV is turned off (interlock function).

**Auto TV On**

When this is set to “On”, the TV turns on automatically when the HDMI control compatible equipment is turned on (interlock function).

**Device List Update**

Creates or updates the “HDMI Device List”. Up to 11 HDMI control compatible equipment items can be connected, and up to 5 equipment items can be connected to a single jack. Be sure to update the “HDMI Device List” when you change the HDMI control compatible equipment connections or settings.

**HDMI Device List**

Displays the connected HDMI control compatible equipment.



You cannot use “HDMI Set-up” when an HDMI control compatible audio system is interlocked with the TV.

---

**Timer Settings**

Sets the timer to turn on/off the TV.

**Sleep Timer**

Sets a period of time after which the TV automatically switches itself into standby mode.

When the “Sleep Timer” is activated, the (Timer) indicator on the TV front panel lights up in amber.



- If you turn off the TV and turn it on again, “Sleep Timer” is reset to “Off”.
- A notification message appears on the screen one minute before the TV switches to standby mode.

**On Timer**

Sets the timer to turn on the TV from standby mode.

“Day”: Selects the day on which you want to activate the “On Timer”.

“Time”: Sets the time to turn on the TV.

“Duration”: Selects the time period after which the TV automatically switches to standby mode again.

“Volume Set-up”: Sets the volume for when the timer turns on the TV.

**Clock Set**

Allows you to adjust the clock manually.

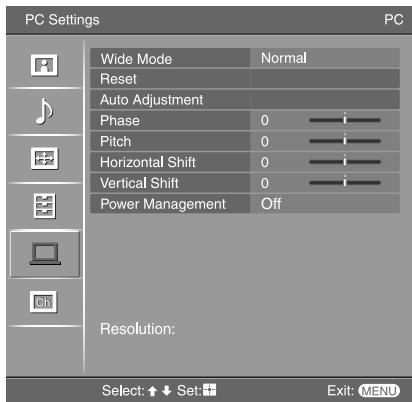
---

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<b>Power Saving Settings</b>	<b>Power Saving</b> Selects the power saving mode to reduce the power consumption of the TV. When “Picture Off” is selected, the picture is turned off and the  (Picture Off) indicator on the TV front panel lights up in green. The sound remains unchanged.
	<b>Power Consumption</b> Displays the power consumption level of the selected power saving mode. When “Display” is selected, power consumption level will be displayed on the screen when you press  or turn on the TV.
<b>Light Sensor</b>	<b>“On”:</b> Automatically optimizes the picture settings according to the ambient light in the room. <b>“Off”:</b> Turns off the “Light Sensor” feature.  <ul style="list-style-type: none"><li>Be sure not to put anything over the sensor, as its function may be affected.</li><li>“Light Sensor” is not available when you set “Power Saving” to “High” (page 28).</li></ul>
<b>Product Information</b>	Displays your TV’s product information.
<b>All Reset</b>	Resets all settings to the factory settings and then displays the “Auto Start-up” screen.  <ul style="list-style-type: none"><li>Be sure not to turn the TV off during this period (it takes about 30 seconds) or press any buttons.</li><li>All settings, including language, auto tuned channels, etc. will be reset.</li></ul>

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# PC Settings menu



You can select the options listed below on the “PC Settings” menu. To select options in “Settings”, refer to “Navigating through menus” (page 19).

## Wide Mode

Selects a screen mode for displaying input from your PC.

“Normal”: Displays the picture in its original size.

“Full 1”: Enlarges the picture to fill the display area, keeping its original horizontal-to-vertical aspect ratio.

“Full 2”: Enlarges the picture to fill the display area.

## Reset

Resets all the “PC Settings” except “Wide Mode” and “Power Management” to the factory settings.

## Auto Adjustment

Automatically adjusts the display position and phase of the picture when the TV receives an input signal from the connected PC.



“Auto Adjustment” may not work well with certain input signals. In such cases, manually adjust “Phase”, “Horizontal Shift” and “Vertical Shift”.

## Phase

Adjusts the phase when the screen flickers.

## Pitch

Adjusts the pitch when the picture has unwanted vertical stripes.

## Horizontal Shift

Adjusts the horizontal position of the picture.

## Vertical Shift

Adjusts the vertical position of the picture.

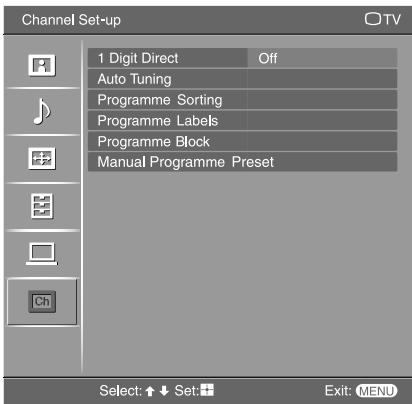
## Power Management

Switches the TV to standby mode if no signal is received for 30 seconds.



You can refer to PC Input Signal Reference Chart (page 33) for supported signals and “Resolution:” value displayed.

# Channel Set-up menu



You can select the options listed below on the “Channel Set-up” menu. To select options in “Settings”, refer to “Navigating through menus” (page 19).

## 1 Digit Direct

When “1 Digit Direct” is set to “On”, you can select a channel using one preset number button (0 - 9) on the remote.



When “1 Digit Direct” is set to “On”, you cannot select channel numbers 10 and above entering two digits using the remote.

## Auto Tuning

Tunes in all the available channels.

This option allows you to retune the TV after moving house, or to search for new channels that have been launched by broadcasters.

## Programme Sorting

Changes the order in which the channels are stored on the TV.

- 1 Press  $\wedge/\vee$  to select the channel you want to move to a new position, then press  $\oplus$ .
- 2 Press  $\wedge/\vee$  to select the new position for your channel, then press  $\oplus$ .

## Programme Labels

Assigns a channel name of your choice up to five letters or numbers. The name will be displayed briefly on the screen when the channel is selected.

- 1 Press  $\wedge/\vee$  to select the channel you want to name, then press  $\oplus$ .
- 2 Press  $\wedge/\vee$  to select the desired letter or number (“\_” for a blank space), then press  $\Rightarrow$ .

### If you input a wrong character

Press  $\Leftarrow/\rightarrow$  to select the wrong character. Then, press  $\wedge/\vee$  to select the correct character.

### To delete all the characters

Select “Reset”, then press  $\oplus$ .

- 3 Repeat the procedure in step 2 until the name is completed.
- 4 Select “OK”, then press  $\oplus$ .

## Programme Block

Blocks an individual channel from being watched.

- 1 Press  $\wedge/\vee$  to select the channel you want to block, then press  $\oplus$ .
- 2 Press  $\wedge/\vee$  to select “Block”, then press  $\oplus$ .  
To watch the channel, select “Allow”.

## Manual Programme Preset

Before selecting “Label”/“AFT”/“Audio Filter”/“Skip”/“Colour System”/“Signal Booster”, press PROG +/- to select the programme number with the channel. You cannot select a programme number that is set to “Skip” (page 31).

### Programme/TV System/VHF or UHF

Presets programme channels manually.

- 1 Select “Programme”, then press  $\oplus$ .
- 2 Press  $\wedge/\vee$  to select the programme number you want to manually tune (if tuning a VCR, select channel 00), then press RETURN.
- 3 Press  $\wedge/\vee$  to select “TV System”, then press  $\oplus$ .
- 4 Press  $\wedge/\vee$  to select your TV broadcast systems, then press  $\oplus$ .
- 5 Press  $\wedge/\vee$  to go to the frequency range indication (“VHF Low”, “VHF High” or “UHF”), then press  $\oplus$ .
- 6 Tune the channels as follows:

Press  $\leftarrow/\rightarrow$  to search for the next available channel. When a channel has been found, the search will stop. To continue searching, press  $\leftarrow/\rightarrow$ .

Repeat the procedure above to preset other channels manually.

### Label

Assigns a name of your choice, up to five letters or numbers, to the selected channel. This name will be displayed briefly on the screen when the channel is selected. To input characters, follow steps 2 to 4 of “Programme Labels” (page 30).

### AFT

Allows you to fine-tune the selected programme number manually if you feel that a slight tuning adjustment will improve the picture quality.

You can adjust the fine tuning over a range of -15 to +15. When “On” is selected, the fine tuning is performed automatically.

### Audio Filter

Improves the sound for individual channels in the case of distortion in mono broadcasts. Sometimes a non-standard broadcast signal can cause sound distortion or intermittent sound muting when watching mono programmes.

If you do not experience any sound distortion, we recommend that you leave this option set to the factory setting “Off”.



You cannot receive stereo or dual sound when “Low” or “High” is selected.

### Skip

Skips unused channels when you press PROG +/- to select channels. (You can still select a skipped channel using the number buttons.)

### Colour System

Selects the colour system (“Auto”, “PAL”, “SECAM”, “NTSC3.58”, “NTSC4.43” or “PAL60”) according to the channel.

### Signal Booster (Intelligent Signal Booster)

Improves the picture quality if the TV signal is too strong or weak.

Press  $\wedge/\vee$  to select either “Off” if the signal is too strong (picture distorted; picture with lines; signal interference) or “Auto” if the signals is weak (snowy picture), then press  $\oplus$ .

### Signal Level

Displays the signal level for programme currently being watched.



## Additional Information

# Specifications

Model name	KLV-46V300A	KLV-40V300A	KLV-32V300A	KLV-26V300A
<b>System</b>				
Panel System	LCD (Liquid Crystal Display) Panel			
TV System	B/G, I, D/K, M			
Colour System	PAL, PAL60, SECAM, NTSC4.43, NTSC3.58			
Channel Coverage	B/G: VHF: E2 to E12/ UHF: E21 to E69/ CATV: S01 to S03, S1 to S41 VHF: 0 to 12, 5A, 9A/ UHF: 28 to 69/ CATV: S01 to S03, S1 to S44 (Australia only) VHF: 1 to 11/ UHF: 21 to 69/ CATV: S01 to S03, S1 to S41 (New Zealand only) I: UHF: B21 to B69/ CATV: S01 to S03, S1 to S41 D/K: VHF: C1 to C12, R1 to R12/ UHF: C13 to C57, R21 to R60/ CATV: S01 to S03, S1 to S41, Z1 to Z39 M: VHF: A2 to A13/ UHF: A14 to A79/ CATV: A-8 to A-2, A to W+4, W+6 to W+84			
Sound Output	10 W + 10 W			
<b>Input/Output jacks</b>				
Antenna	75 ohm external terminal			
S- 1, 2	S video input (4-pin mini DIN)			
- 1, 2, 3	Video input (phono jack)			
- 1, 2, 3	Audio input (phono jacks): 500 mVrms, Impedance: 47 kilohms			
- 1, 2	Supported formats: 1080p (50/60 Hz), 1080i (50/60 Hz), 720p (50/60 Hz), 576p, 576i, 480p, 480i Y: 1 Vp-p, 75 ohms, 0.3V sync negative/Pb/Cb: 0.7 Vp-p, 75 ohms/Pr/Cr: 0.7 Vp-p, 75 ohms			
- 1, 2	Audio input (phono jacks): 500 mVrms, Impedance: 47 kilohms			
	Video output (phono jack)			
	Audio output (phono jacks)			
HDMI IN 1, 2	Video: 1080p (50/60 Hz), 1080i (50/60 Hz), 720p (50/60 Hz), 576p, 576i, 480p, 480i Audio: Two channel linear PCM 32, 44.1 and 48 kHz, 16, 20 and 24 bits Analogue audio input (phono jacks): 500 mVrms, Impedance: 47 kilohms (HDMI IN 2 only)			
PC IN -	PC Input (D-sub 15-pin) (see page 33) G: 0.7 Vp-p, 75 ohms, non Sync on Green/B: 0.7 Vp-p, 75 ohms/ R: 0.7 Vp-p, 75 ohms/HD: 1-5 Vp-p/VD: 1-5 Vp-p			
PC IN -	PC audio input (minijack)			
	Audio output (phono jacks)			
<b>Power and others</b>				
Power Requirements	110–240 V AC, 50/60 Hz			
Screen Size (inches)	46	40	32	26
Display Resolution	1,366 pixels (horizontal) × 768 lines (vertical)			
Power Consumption	Indicated on the rear of the TV.			
Dimensions (w × h × d)*	with stand (mm)	1114 × 782 × 306	981 × 696 × 265	790 × 581 × 214
	without stand (mm)	1114 × 730 × 115	981 × 643 × 110	656 × 452 × 96
Mass*	with stand (kg)	31	24	16
	without stand (kg)	26	20	14
Optional Accessories	Wall-Mount bracket	SU-WL500		
		SU-WL100		

\* Dimensions and mass are approximate values.

Design and specifications are subject to change without notice.

## PC Input Signal Reference Chart

Signals	Horizontal (Pixel)	Vertical (Line)	Horizontal frequency (kHz)	Vertical frequency (Hz)	Standard
VGA	<b>640</b>	<b>480</b>	<b>31.5</b>	<b>60</b>	VGA
	640	480	37.5	75	VESA
	720	400	31.5	70	VGA-T
SVGA	<b>800</b>	<b>600</b>	<b>37.9</b>	<b>60</b>	<b>VESA Guidelines</b>
	800	600	46.9	75	VESA
XGA	<b>1024</b>	<b>768</b>	<b>48.4</b>	<b>60</b>	<b>VESA Guidelines</b>
	1024	768	56.5	70	VESA
	1024	768	60	75	VESA
WXGA	<b>1280</b>	<b>768</b>	<b>47.4</b>	<b>60</b>	VESA
	<b>1280</b>	<b>768</b>	<b>47.8</b>	<b>60</b>	VESA
	<b>1360</b>	<b>768</b>	<b>47.7</b>	<b>60</b>	VESA

- This TV's PC input does not support Sync on Green or Composite Sync.
- This TV's PC input does not support interlaced signals.
- For the best picture quality, it is recommended to use the signals (boldfaced) in the above chart with a 60 Hz vertical frequency from a personal computer. In plug and play, signals with a 60 Hz vertical frequency will be selected automatically.

# Troubleshooting

Check whether the  $\odot$  (standby) indicator is flashing in red.

## When it is flashing

The self-diagnosis function is activated.

- 1 Count how many  $\odot$  (standby) indicator flashes between each two second break.  
For example, the indicator flashes three times, then there is a two second break, followed by another three flashes, etc.
- 2 Press  $\odot$  on the top edge of the TV to turn it off, disconnect the AC power cord, and inform your dealer or Sony service centre of how the indicator flashes (number of flashes).

## When it is not flashing

- 1 Check the items listed below.
- 2 If the problem still persists, have your TV serviced by qualified service personnel.

## Picture

### No picture (screen is dark) and no sound

- Check the antenna/cable connection.
- Connect the TV to the AC power outlet, and press  $\odot$  on the top edge of the TV.
- If the  $\odot$  (standby) indicator lights up in red, press  $\text{I}/\odot$ .

### No picture or no menu information from equipment connected to the video input jack

- Press  $\text{S}/\text{H}$  to display the connected equipment list, then select the desired input.
- Check the connection between the optional equipment and the TV.

### Double images or ghosting

- Check the antenna/cable connection.
- Check the antenna location and direction.

### Only snow and noise appear on the screen

- Check if the antenna is broken or bent.
- Check if the antenna has reached the end of its serviceable life (three to five years in normal use, one to two years at the seaside).

### Distorted picture (dotted lines or stripes)

- Keep the TV away from electrical noise sources such as cars, motorcycles, hair-dryers or optional equipment.
- When installing optional equipment, leave some space between the optional equipment and the TV.
- Check the antenna/cable connection.
- Keep the antenna cable away from other connecting cables.
- Broadcast signals are too strong. Turn off or disconnect the booster if it is in use.

### Picture or sound noise when viewing a TV channel

- Select "Manual Programme Preset" in the "Channel Set-up" menu and adjust "AFT" (Automatic Fine Tuning) to obtain better picture reception (page 31).
- Select "Noise Reduction" in the "Picture" menu to reduce the noise in the picture (page 21).

### Good picture, but noisy sound

- The TV system setting is inappropriate.
- If the sound of all the channels are noisy, perform "Auto Tuning" in the "Channel Set-up" menu to preset the channel again (page 30).
- If the sound of some channels is noisy, select the channel, then perform "Manual Programme Preset" in the "Channel Set-up" menu, and select the appropriate TV system ("TV System") (page 31).

### Some tiny black points and/or bright points appear on the screen

- The picture of a display unit is composed of pixels. Tiny black points and/or bright points (pixels) on the screen do not indicate a malfunction.

### No colour on programmes

- Select "Reset" in the "Picture" menu to return to the factory settings (page 20).

### No colour or irregular colour when viewing a signal from the Y, Pb/Cb, Pr/Cr jacks of $\text{---}/\text{---} 1$ or $2$

- Check the connection of the Y, Pb/Cb, Pr/Cr jacks of  $\text{---}/\text{---} 1$  or 2.
- Make sure that the Y, Pb/Cb, Pr/Cr jacks of  $\text{---}/\text{---} 1$  or 2 are firmly seated in their respective jacks.

### Picture flashes initially when changing to HDMI mode or switching on the TV with HDMI mode

- This is probably caused by the authentication process between HDMI equipment and the TV. It does not indicate a malfunction.

## Sound

### No sound, but good picture

- Press  $\triangle +/-$  or  $\text{Mute}$ .
- Check if the "Speaker" is set to "TV Speaker" from the "AV Set-up" menu in "Set-up" menu (page 26).

### Stereo broadcast sound switches on and off, or is distorted; the sound switches between stereo and monaural frequently

- The antenna connection is loose or the antenna cable is damaged. Check the cable and connection on the TV, VCR, and on the wall (page 4).
- Adjust the antenna direction for the minimum interference. Contact a Sony dealer for advice.
- Signal transmission is low. Try using a booster. Otherwise, use the fine tuning ("AFT") function (page 31).

## General

### The TV turns off automatically (the TV enters standby mode)

- Check if the “Sleep Timer” is activated, or confirm the “Duration” setting of “On Timer” (page 27).

### The TV turns on automatically

- Check if the “On Timer” is activated (page 27).

### Some input sources cannot be selected

- Select “Video Labels” in the “AV Set-up” menu and cancel “Skip” of the input source (page 26).

### The remote does not function

- Replace the batteries.

### The “Store Display Mode: On” message appears on the screen

- Select “All Reset” in the “Set-up” menu (page 28).

### The wide screen mode changes spontaneously when “Auto Wide” is “On”

- During a transition between two programmes, the TV detects the optimum wide screen mode. During this period, an irregular wide screen mode may appear.
- The wide mode is switched automatically according to the revised signal with a Wide ID signal.
- The “Auto Wide” feature stops working temporarily when you press  , and resumes after a while. To fix in the manually selected wide screen mode, set “Auto Wide” to “Off” in the “Screen” menu (page 24).

### Text display is incomplete or garbled

- Your area may not be able to receive Text. Text is displayed only in the area that is covered by Text services.
- The antenna connection is loose or the antenna cable is damaged. Check the cable and connection on the TV, VCR, and on the wall (page 4).
- Adjust the antenna direction. Contact a Sony dealer for advice.
- Signal transmission is too low. Try using a booster.
- Using the fine tuning (“AFT”) function may improve the picture (page 31).

### Cannot play shooting games

- Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For details, see the instruction manual supplied with the video game software.

### The TV cabinet creaks

- Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction.

### Static discharge is felt when touching the TV cabinet

- This is the same static discharge that is felt when touching metal door handles or car doors especially when the air is dry, for example in winter. This does not indicate a malfunction.

### Weak signal (signal level indicator displayed in red)

- Check the antenna/cable connection.
- Set the “Signal Booster” to “Auto” (page 31) or try using an external booster.



\* 3 1 9 8 1 8 5 1 1 \* (2)

<http://www.sony.net/>

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