6 Service Mode

6.1. How to enter into Service Mode

6.1.1. Purpose

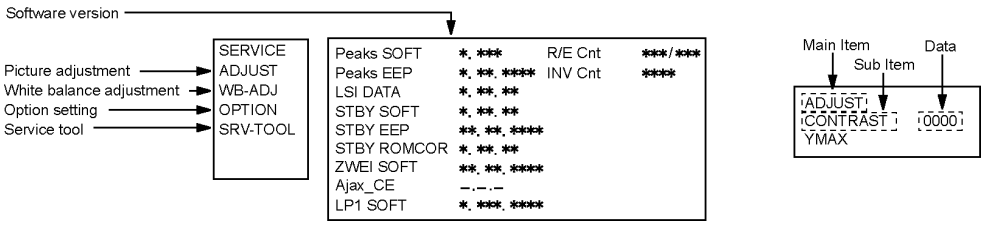
After exchange parts, check and adjust the contents of adjustment mode.

While pressing [VOLUME (-)] button of the main unit, press [INFO] button of the remote control three times within 2 seconds.

Note:

Service Mode can not be entered when 3D signal input.

Input 2D signal to enter Service Mode.



6.1.2. Key command

[1] button...Main items Selection in forward direction

[2] button...Main items Selection in reverse direction

[3] button...Sub items Selection in forward direction

[4] button...Sub items Selection in reverse direction

[VOL] button...Value of sub items change in forward direction (+), in reverse direction (-)

6.1.3. How to exit

Switch off the power with the [POWER] button on the main unit or the [POWER] button on the remote control.

6.1.4. Contents of adjustment mode

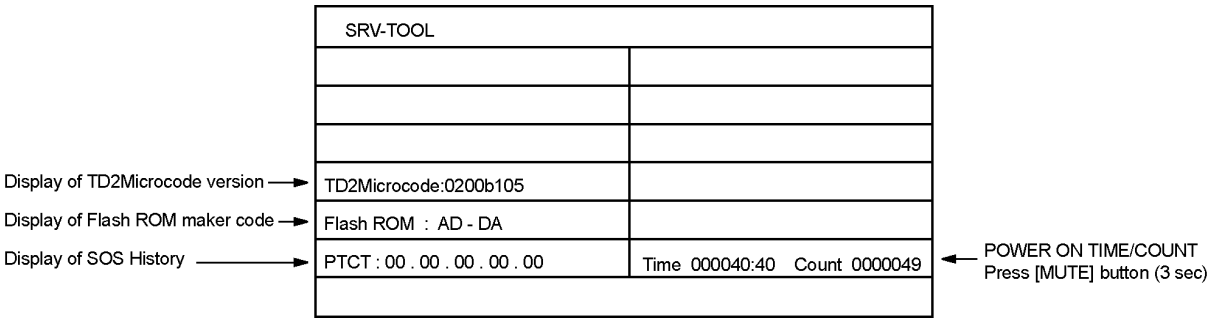
- Value is shown as a hexadecimal number.
- Preset value differs depending on models.
- After entering the adjustment mode, take note of the value in each item before starting adjustment.

Main item	Sub item	Sample Data	Remark
ADJUST	CONTRAST	000	
	COLOR	56	
	TINT	00	
	SUB-BRT	800	
	BACKLGT	086	
	B-Y-G	40	
	R-Y-A	00	
	V COM	18D	
WB-ADJ	R-GAIN	80	
	G-GAIN	6B	
	B-GAIN	5D	
	R-CENT	84	
	G-CENT	80	
	B-CENT	8F	
OPTION	Boot	ROM	Factory Preset.
	STBY-SET	00	
	EMERGENCY	OFF	
	CLK MODE	00	
	CLOCK	138	
	EDID-CLK	HIGH	
SRV-TOOL		00	See next.

6.2. SRV-TOOL

6.2.1. How to access

1. Select [SRV-TOOL] in Service Mode.
2. Press [OK] button on the remote control.



6.2.2. Display of SOS History

SOS History (Number of LED blinking) indication.
From left side; Last SOS, before Last, three occurrence before, 2nd occurrence after shipment, 1st occurrence after shipment.
This indication except 2nd and 1st occurrence after shipment will be cleared by [Self-check indication and forced to factory shipment setting].

6.2.3. POWER ON TIME/COUNT

Note : To display TIME/COUNT menu, highlight position, then press MUTE for 3 sec.
Time : Cumulative power on time, indicated hour : minute by decimal
Count : Number of ON times by decimal
Note : This indication will not be cleared by either of the self-checks or any other command.

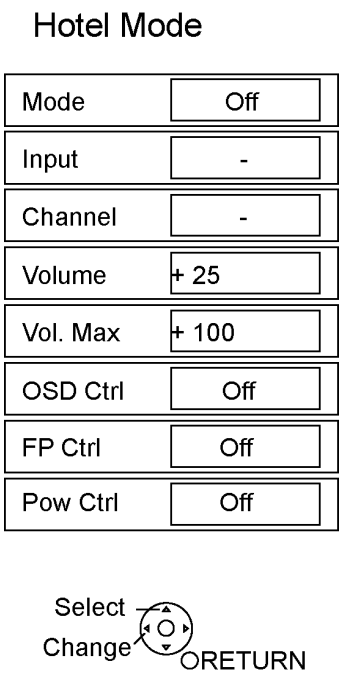
6.2.4. Exit

1. Disconnect the AC cord from wall outlet.

6.3. Hotel mode

1. Purpose
   Restrict a function for hotels.
2. Access command to the Hotel mode setup menu
   In order to display the Hotel mode setup menu:
   While pressing [VOLUME (-)] button of the main unit, press [INPUT] button of the remote control three times within 2 seconds.

   Then, the Hotel mode setup menu is displayed.



3. To exit the Hotel mode setup menu
   Disconnect AC power cord from wall outlet.
4. Explain the Hotel mode setup menu

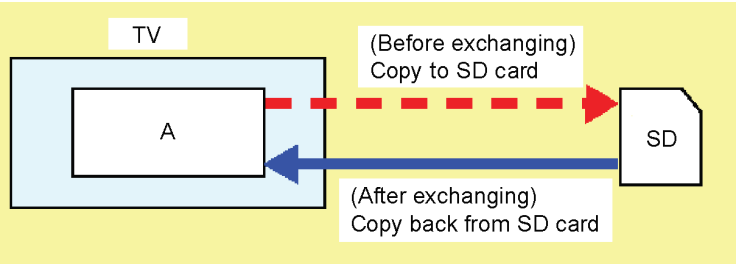
Item	Function
Mode	Select hotel mode off/on
Input	Select input signal modes. Set the input, when each time power is switched on. Selection: -/RF/HDMI1/HDMI2/HDMI3/HDMI4/Component/Video/PC • OFF: give priority to a last memory.
Channel	Select channel when input signal is RF. Set the channel, each time power is switched on. Selection: Any channel number or [-]. [-] means the channel when turns off.
Volume	Adjust the volume when each time power is switched on. Range: 0 to 100
Vol. Max	Adjust maximum volume. Range: 0 to 100
OSD Ctrl	Restrict the OSD. Selection: Off/Pattern1 • Off: No restriction • Pattern1: restriction
FP Ctrl	Select front key conditions. Selection: Off/Pattern1/All • Off: altogether valid. • Pattern1: altogether invalid. • All: only input key is valid.
Pow Ctrl	Select POWER-ON/OFF condition when AC power cord is disconnected and then connected. Off: The same condition when AC power cord is disconnected. On: Forced power ON condition.

6.4. Data Copy by SD Card

6.4.1. Purpose

(a) Board replacement (Copy the data when exchanging A-board):

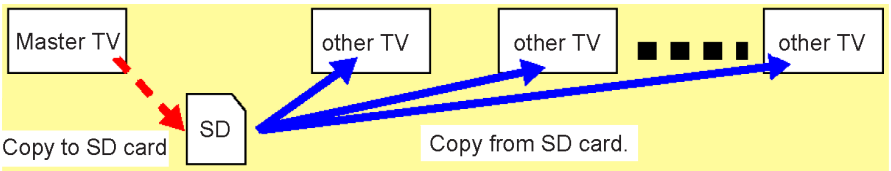
When exchanging A-board, the data in original A-board can be copied to SD card and then copy to new A-board.



Following data can be copied.
- User setting data
- (incl. Hotel mode setting data)
- Channel scan data
- Adjustment and factory preset data

(b) Hotel (Copy the data when installing a number of units in hotel or any facility):

When installing a number of units in hotel or any facility, the data in master TV can be copied to SD card and then copy to other TVs.



Following data can be copied.
- User setting data
- (incl. Hotel mode setting data)
- Channel scan data

6.4.2. Preparation

Make pwd file as startup file for (a) or (b) in a empty SD card.

1. Insert a empty SD card to your PC.
2. Right-click a blank area in a SD card window, point to New, and then click text document. A new file is created by default (New Text Document.txt).
3. Right-click the new text document that you just created and select rename, and then change the name and extension of the file to the following file name for (a) or (b) and press ENTER.

File name:

(a) For Board replacement : boardreplace.pwd

(b) For Hotel : hotel.pwd

Note:

Please make only one file to prevent the operation error.

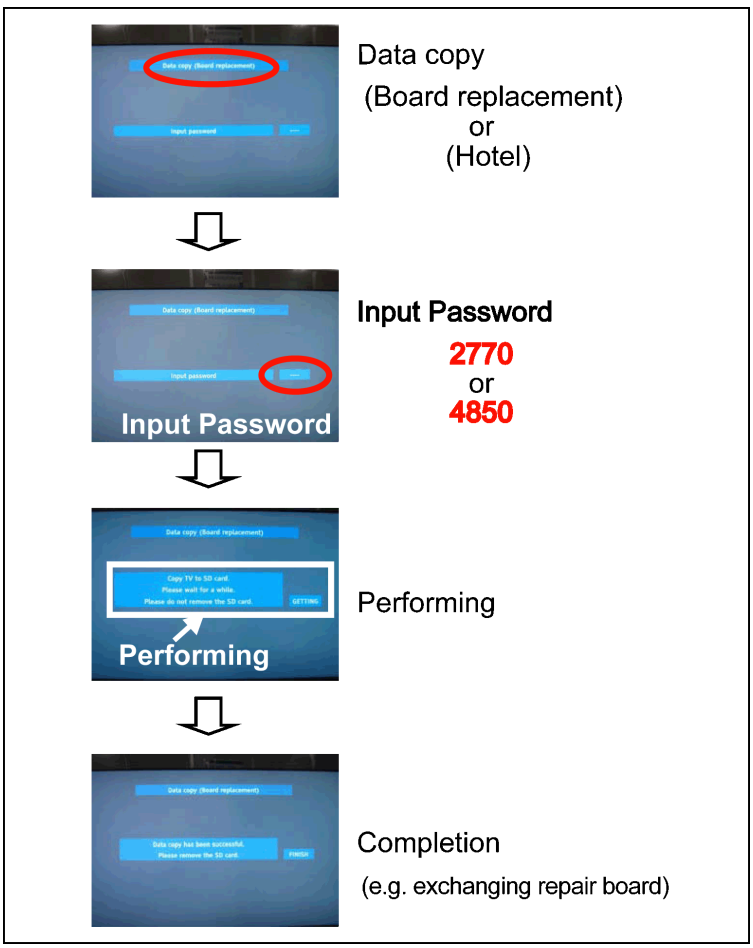
No any other file should not be in SD card.

6.4.3. Data copy from TV set to SD Card

1. Turn on the TV set.
2. Insert SD card with a startup file (pwd file) to SD slot.
   On-screen Display will be appeared according to the startup file automatically.
3. Input a following password for (a) or (b) by using remote control.
   (a) For Board replacement : 2770
   (b) For Hotel : 4850
   Data will be copied from TV set to SD card.
   It takes around 2 to 6 minutes maximum for copying.
4. After the completion of copying to SD card, remove SD card from TV set.
5. Turn off the TV set.

Note:

Following new folder will be created in SD card for data from TV set.
(a) For Board replacement : user_setup
(b) For Hotel : hotel

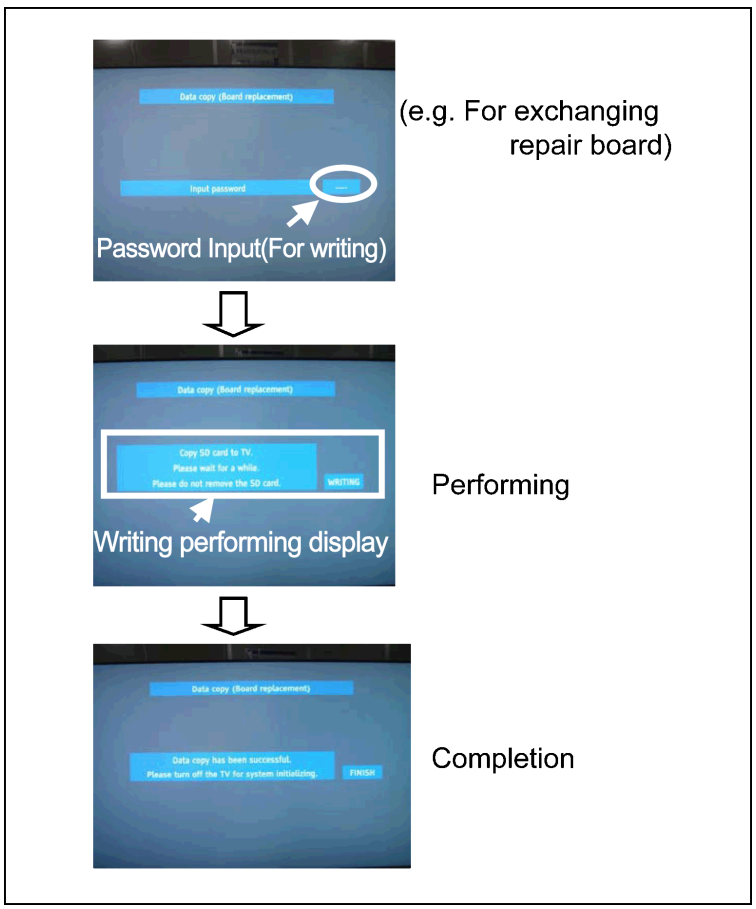


6.4.4. Data copy from SD Card to TV set

1. Turn on the TV set.
2. Insert SD card with Data to SD slot.
   On-screen Display will be appeared according to the Data folder automatically.
3. Input a following password for (a) or (b) by using remote control.
   (a) For Board replacement : 2771
   (b) For Hotel : 4851
   Data will be copied from SD card to TV set.
4. After the completion of copying to SD card, remove SD card from TV set.
   (a) For Board replacement : Data will be deleted after copying (Limited one copy).
   (b) For Hotel : Data will not be deleted and can be used for other TVs.
5. Turn off the TV set.

Note:

1. Depending on the failure of boards, function of Data copy for board replacement does not work.
2. This function can be effective among the same model numbers.



7 Troubleshooting Guide

Use the self-check function to test the unit.

1. Checking the IIC bus lines
2. Power LED Blinking timing

7.1. Check of the IIC bus lines

7.1.1. How to access

Self-check indication only:

Produce TV reception screen, and while pressing [VOLUME (-)] button on the main unit, press [OK] button on the remote control for more than 3 seconds.

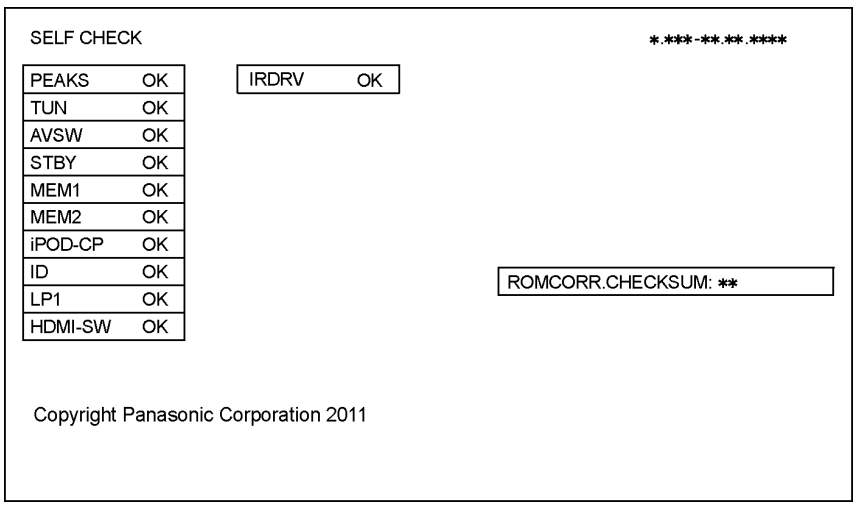
Self-check indication and forced to factory shipment setting:

Produce TV reception screen, and while pressing [VOLUME (-)] button on the main unit, press [MENU] button on the remote control for more than 3 seconds.

7.1.2. Exit

Disconnect the AC cord from wall outlet.

7.1.3. Screen display



7.1.4. Check Point

Confirm the following parts if NG was displayed.

DISPLAY	Check Ref. No.	Description	Check Point
PEAKS	IC8000	PEAKS	A-Board
TUN	TU4801C	TUNER	A-Board
AVSW	IC3001	AV SWITCH	A-Board
STBY	IC8000	PEAKS (STM)	A-Board
MEM1	IC8902	EEPROM (PEAKS)	A-Board
MEM2	IC8901	EEPROM (STM)	A-Board
iPOD-CP	IC3900	iPod-CP	A-Board
ID		ID	
LP1		LP1	LCD PANEL
HDMI-SW	IC4700	HDMI-SW	A-Board
IRDRV	IC5901	IR LED DRIVER	A-Board

7.2. Power LED Blinking timing chart

1. Subject
   Information of LED Flashing timing chart.
2. Contents
   When an abnormality has occurred the unit, the protection circuit operates and reset to the stand by mode. At this time, the defective block can be identified by the number of blinks of the Power LED on the front panel of the unit.

Blinking Times	Contents	Check point
1	BACK LIGHT SOS	LCD PANEL P-Board
3	Tuner SOS	A-Board P-Board
4	P15V SOS	A-Board P-Board
7	SUB 3.3V SOS	A-Board
9	SOUND SOS	A-Board Speaker
10	LP1 SOS	LCD PANEL
13	EMERGENCY SOS	A-Board
14	IROM SOS	A-Board

7.3. LCD Panel test mode

Purpose:
To find the possible failure point where in LCD Panel or Printed Circuit Board when the abnormal picture is displayed.

How to Enter:
While pressing [VOLUME (-)] button of the main unit, press [SUB MENU] button of the remote control three times within 2 seconds.

How to Exit:
Disconnect AC plug from wall outlet.

How to confirm:
If the abnormal picture is displayed, go into LCD Panel test mode to display the several test patterns.
And then, judge by the following method.
Still abnormal picture is displayed: The cause must be in LCD Panel.
Normal picture is displayed: The cause must be in A board.

Remarks:
The test pattern is created by the circuit in LCD Panel.
In LCD Panel test mode, this test pattern is displayed unaffected by signal processing for RF or input signal.
If the normal picture is displayed, LCD Panel must be okay and the cause of failure must be in A board.