Service Navigation
Chassis Board Layout

P-BOARD
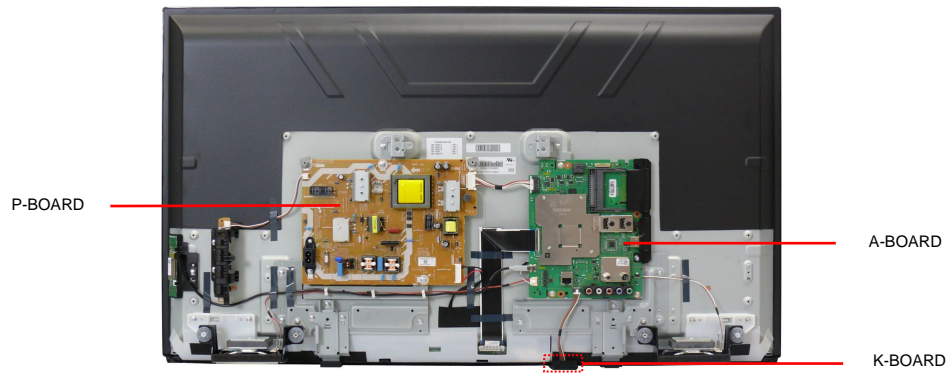
A-BOARD

K-BOARD

Board Name	Function
A-Board	AV Terminal, HDMI, USB, WIFI, Ethernet, Digital Audio Out, CI Slot, TUNER A/DVB-T2/T/C/S/S2, DVB-T2/T/C/S2/S Dem, IC Main Processor, Speaker out, HP, eMMc Memory, DDR SDRAM
P-Board	Main Input, Power Supply, LED Driver, KEY Control, Power Switch
K-Board	Remote Receiver, Power and Timer LED, C.A.T.S

Service Hints

How to remove the pedestal assembly
How to remove the backcover

Lay the main unit face down. (see Fig.4)

Fig.4

Remove the 4 fixing screws and pedestal assembly. (see Fig.5)

Fig.5

SCREWS
(1) THE5ZL002N /4pcs/

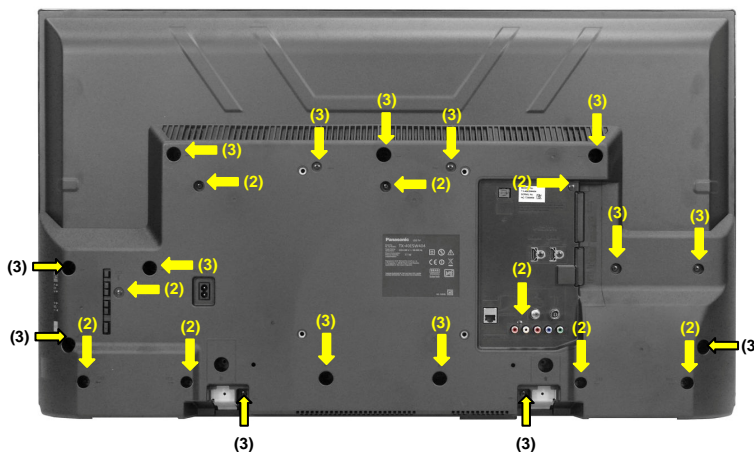Remove the 24 fixing screws and the back cover. (see Fig.6)

Fig.6

SCREWS
(2) THTD037J /9pcs/
(3) THEC1509 /15pcs/

Caution: Before removing cover, receiver must be disconnect from mains.

Applicable Signals

Component (Y, Pb, Pr) (from AV terminal), **HDMI**

Signal name	COMPONENT	HDMI
525 (480) / 60i,60p	*	*
625 (576) / 50i, 50p	*	*
750 (720) / 60p, 50p	*	*
1,125 (1,080) / 60i, 50i	*	*
1,125 (1,080) / 60p, 50p, 24p		*

Note:
- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.

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Specifications

Power Source:	220-240V AC, 50 / 60Hz	
Rated Power Consumption:	77W	
Stand-by Power Consumption:	0.50W	
Aerial Impedance:	75Ω unbalanced, Coaxial Type	

Receiving System:

DVB-S/S2	Digital satellite services (MPEG2 and MPEG4-AVC(H.264) and MPEG HEVC (H.265)) Receiver frequency range – 950 MHz to 2,150MHz DiSEqC – Version 1.0.
DVB-T/T2	Digital terrestrial services (MPEG2 and MPEG4-AVC(H.264) and MPEG HEVC (H.265))
DVB-C	Digital cable services (MPEG2 and MPEG4-AVC(H.264) and MPEG HEVC (H.265))

PAL I/H, B/G,
SECAM B/G, L/L'

VHF E2-E12	VHF H1-H2 (ITALY)
VHF A-H (ITALY)	UHF E21-E69
CATV (S01-S05)	CATV S1-S10(M1-M10)
CATV S11-S20 (U1-U10)	CATV S21-S41 (HYPERBAND)

PAL D/K,
SECAM D/K

VHF R1-R2	VHF R3-R5
VHF R6-R12	UHF E21-E69

PAL 525/60	(AV only)
M.NTSC	(AV only)
NTSC	(AV only)

Satellite dish input:	Female F-type 75Ω
Aerial - Rear:	VHF/UHF

Operating Conditions: Temperature: 0°C ÷ 35°C
Humidity: 20% ÷ 80% RH (non condensing)

Terminals:
AV IN (COMPONENT/VIDEO)

VIDEO	Video (RCAx1)	1V p-p 75Ω
	Video (RCAx3)	Y:1V p-p 75Ω (including synchronisation) Pb/Cb, Pr/Cr: ±0.35V p-p 75Ω
AUDIO IN	Audio (RCAx2)	500mV rms 10kΩ (used for HDMI analogue audio IN)

HDMI1/2	Type A Connectors HDMI 1 : Content Type HDMI 2 :Content Type, Audio Return Channel This TV supports "HDAVI Control 5" function.
DIGITAL AUDIO OUT	PCM / Dolby digital, Fibre optic
USB 1/2	DC 5V, Max 500mA [Hi-Speed USB (USB 2.0)]
ETHERNET	RJ45, IEEE802.3 10BASE-T / 100BASE-TX
CARD SLOT	Common interface slot (Complies with CI+) x 1

Wireless LAN:

Standard Compliance	IEEE802.11a/n , IEEE802.11b/g/n

Frequency Range	IEEE802.11a/n: 5.180 GHz – 5.320 GHz
	                         5.500 GHz – 5.580 GHz
	                         5.660 GHz – 5.700 GHz
	IEEE802.11b/g/n: 2.412 GHz – 2.472 GHz

Security	WPA2-PSK (TKIP/AES) WPA-PSK (TKIP/AES) WEP(64 bit/128 bit)

LCD screen: L5EDDYY00843
1920 x 1080, 16:9
Visible Diagonal 1000mm

Audio Output:	20W (10W + 10W)		
Headphones:	3.5mm, 8Ω Impedance		
Accessories supplied :	Remote Control		
	2 x R6 Batteries		

Dimensions:	Width:	Height:	Depth:
Including TV stand	902mm	569mm	239mm
TV set only	902mm	521mm	88mm

Mass:			
Including TV stand	8.5kg		
TV set only	8.0kg		

Design and Specifications are subject to change without notice.
Mass and dimensions shown are approximate.

Technical Description
Specification of KEY for DTCP-IP, C2MOD, CI Plus, Netflix, Widevine, HDCP, HDCP2.2
General information:
1. eMMc Memory(IC8920) for spare parts has the seed of KEY for each.
2. The final KEY data will be generated by MTK IC (IC8000) when SELF CHECK was done and are stored in both
   MTK IC (IC8000) and eMMc (IC8920).
   All KEYs are not generated for all models.
   The necessary KEY are only generated and stored depend on the feature of models.

Replacement of ICs:
When MTK IC (IC8000) is replaced, eMMc (IC8920) should be also replaced with new one the same time.
When eMMc Memory(IC8920) is replaced, MTK IC (IC8000) is not necessary to be replaced the same time.
After the replacement of IC, SELF CHECK should be done to generate the final KEY data.
Note:
Key HDCP is not displayed in SELF CHECK.
Connect the 1080p/60Hz compatible equipment to HDMI1/2 for verification of key HDCP

How to SELF CHECK: While pressing [VOLUME (-)] button on the main unit, press the **MENU** button on the remote control for more than 3 seconds.
TV will be forced to the factory shipment setting after this SELF CHECK.

Model and Keys:

Model No.	Keys					
	C2MOD	CI+ for MTK	DTCP-IP for MTK	Netflix Widevine MAC	HDCP2.2 (SINK) for MTK	HDCP
TX-40ES403E	Yes	Yes	Yes	Yes	Yes	Yes
TX-40ESW404	Yes	Yes	Yes	Yes	Yes	Yes

USB HDD Recording:
General information:
Digital TV programmes can be recorded in USB HDD.
C2MOD key generated in A-board by SELF CHECK binds TV and USB-HDD for communication.
That key is only one key for them. If the key is different, TV can not access USB-HDD.

Caution:
New key will be generated by following SELF CHECK and previous TV programmes recorded in USB HDD will not be viewed.
SELF CHECK: While pressing [VOLUME (-)] button on the main unit, press the **MENU** button on the remote control for more than 3 seconds.

Setting Inspection
Voltage Confirmation

A board

Description	Test point	Voltage	
PNL12V	TP5260	12.1V ± 0.8V	
SUB5V	TP5221	5.1V ± 0.25V	
USB1	TP8701	5.1V ± 0.25V	
USB2	TP8705	5.1V ± 0.25V	
USB-WiFi	TP8718	5.14V± 0.25V	
SUB3.3V	TP5011	3.32V ± 0.165V	
HDMI3.3V	TP4514	3.35V ± 0.17V	
SUB_AI_3.3V	TP2206	3.32V ± 0.165V	
STB_1.5V	TP8101	1.50V ± 0.07V	
SUB1.2V	TP8100	1.20V ± 0.06V	
EU_TU_1.8V	TP5704	1.84V ± 0.1V	
LNB_PWR1	TP6702	18.0V ± 1.0V	
DTMB_1.2V	TP5705	1.2V ± 0.12V	

P board

Description	Test point	Voltage*	Voltage**
VLED	TP7801 and GND TP7521	$<$30V	50V ± 4V
16.4V	TP7509 and GND TP7521	$<$1V	15.8V ± 0.5V
5.3V	TP7507 and GND TP7521	5.3V ± 0.3V	5.3V ± 0.3V
24V	TP7511 and GND TP7521	$<$30V	24V ± 4V
PFC	TP7201 and GND TP7203***	< 340V	390V ± 10V

*   Connect AC 230V to JK7101 connector of P-PCB (Main switch is OFF (SUB_ON is LOW)).
**   Set main switch is ON (BL_ON (TP7518), PWM1 (TP7517) signals are connected to 3.3V).
*** Beware, for testing of PFC use the GND (TP7203) in Hot area of P board – risk of electric shock.

CS Maintenance Menu

MPU controls the functions switching for each IICs through IIC bus in this chassis. The following setting and adjustment can be adjusted by remote control in Service Menu

How to enter into CS Maintenance Menu
Purpose

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

While pressing [VOLUME (-)] button on the main unit, press the [RED] button on the remote control for 3 times within 2 seconds.
Note:
   Input 2D signal to enter CS Maintenance Menu.

How to exit

Press the [EXIT] button on the remote control.

CS Maintenance Menu	
OPT	
EDID CLK	
DRV CHECK	
WB-ADJ	

Key Command

- Press the (↑/↓/➜/⬅) button to step up/down/right/left through the functions and adjustments
- Press the **OK** button to change the adjustment values.
- Press the **RETURN** button for return to the main menu.

OPT

   1.Select [OPT] in CS Maintenance Menu.
   2.Press [OK] button or Cursor key [Right] on the remote control.

CS Maintenance Menu		
OPT		7 6 5 4 3 2 1 0
EDID CLK	OPT1	0 0 0 0 0 1 0 0
DRV CHECK	OPT2	1 1 1 0 1 1 1 0
	OPT3	0 0 0 0 0 0 0 1
	OPT4	0 0 0 0 0 0 0 0
WB-ADJ		

Exit:
   Press the [EXIT] button or the [RETURN] button on the remote control.

EDID Clock

1.Select [EDID CLK] in CS Maintenance Menu.
2.Press [OK] button or Cursor key [Right] on the remote control.

CS Maintenance Menu			
OPT			
EDID CLK	EDID-CLK	S-HIGH ◄────────	Clock speed
DRV CHECK	HDMI	1 ◄────────	HDMI Number
WB-ADJ			

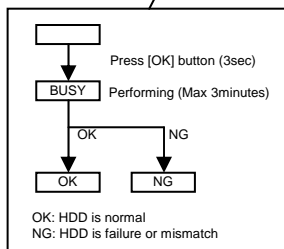**Exit:**
   Press the [EXIT] button or the [RETURN] button on the remote control.

DRV Check (USB HDD Drive Check)

1.Select [DRV CHECK] in CS Maintenance Menu.
2.Press [OK] button or Cursor key [Right] on the remote control.

CS Maintenance Menu		
OPT		******** ***-**-OK
EDID CLK		ERROR-NG
DRV CHECK	OK	******** ***-**-OK
WB-ADJ		

```
        ┌──────┐
        └──┬───┘    Press [OK] button (3sec)
           ▼
        ┌──────┐
        │ BUSY │    Performing (Max 3minutes)
        └──┬───┘
      OK   │   NG
           ▼
  ┌────┐   ┌────┐
  │ OK │   │ NG │
  └────┘   └────┘

OK: HDD is normal
NG: HDD is failure or mismatch
```

```
USBHDD check History

******** *** -** OK…………This time :OK
ERROR-NG……………….. Last time : NG
******** *** -** OK…………Before last time:OK
```

Exit:
   Press the [EXIT] button or the [RETURN] button on the remote control.

WB-ADJ

1.Select [WB-ADJ] in CS Maintenance Menu.
2.Press [OK] button or Cursor key [Right] on the remote control.

CS Maintenance Menu		
OPT	WB-ADJ R-GAIN 80	WB-ADJ G-GAIN 7D
EDID CLK		
DRV CHECK	COLOR TEMP NORMAL	COLOR TEMP NORMAL
	WB-ADJ B-GAIN 7B	
WB-ADJ	COLOR TEMP NORMAL	

```
COLOR TEMP:COOL
          NORMAL
          WARM
          TUNING
Note:for change press [OPTION] button on Remote Control.
```

Exit:
   Press the [EXIT] button or the [RETURN] button on the remote control.

System Information

How to access

1. While pressing [MENU] button on the remote control.
2. To select [Help] and then to select [System Information].(see Fig.7, Fig.8)
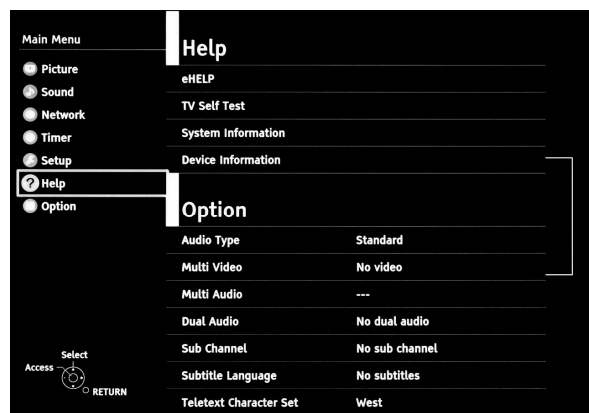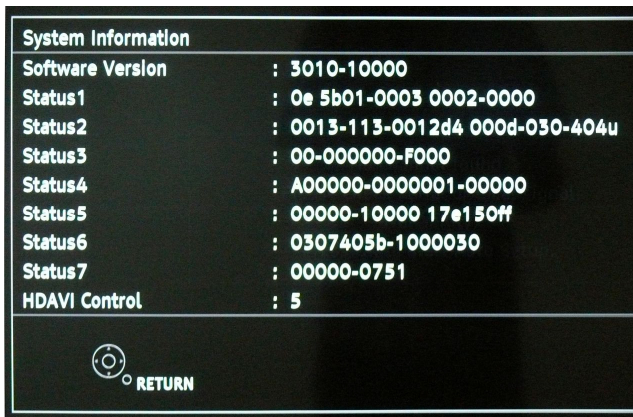
*
Sample only

Fig.7

Fig.8

System Information			
SW version	3010-10000	3010	Peaks SW
		10000	STBY SW
Status1	0e 5b01-0003 0002-0000	0e	Outer model ID
		5b01-0003	Inner model ID
		0002-0000	Panel inch size
Status2	0013-113-0012d4 000d-030-404u	0013	LSI Package
		113	LSI Release
		0012d4	Model data version
		000d	AQ Package
		030	AQ Release
		404u	Model data version
Status3	00-000000-F000	00	Number of bad block in NAND Flash (dec)
		00	Peaks reboot counter
		00	System crash counter
		00	Emergency (SOS) counter
		F	Peaks NAND Maker ID
Status4	A00000-0000001-00000	A	Power-On period (A<=100hrs, B<=200hrs, C>200hrs)
		00000	Total Power-On time (dec, max is 65535)
		0000001	Power-On timer (dec, max is 1048575)
		00000	Fixed (always)
Status5	00000-10000 17e150ff	0	SOS history (latest)
		0	SOS history (last time)
		0	SOS history (last but one)
		0	SOS history (2nd time after shipping)
		0	SOS history (1st time after shipping)
		1	Self-check _0-never selfcheck
			1-production selfcheck by "FF" or USCM
			2-user selfcheck by pressing "OK"
		0000	Fixed (always)
		17e150ff	Panel ID
Status6	0307405b-1000030	0307405b	Peaks EEPROM version
		1000030	STM EEPROM version
Status7	00000-0751	000000	STM ROMCOR version
		0751	AJAX_CE version
HDAVI Control	5	5	VIERA Link version is displayed

How to exit

Press the [RETURN] button on the remote control.

Customised TV (Smart Lock)
(Only for TX-40ESW404)

1. Purpose
   Smart lock feature provides a method for Panasonic dealer to operate the TV in specific customised mode
   and allows to hide functions to reduce the complexity when customer is using the product furthermore,
   dealers should have the opportunity to copy such settings to another TV set.
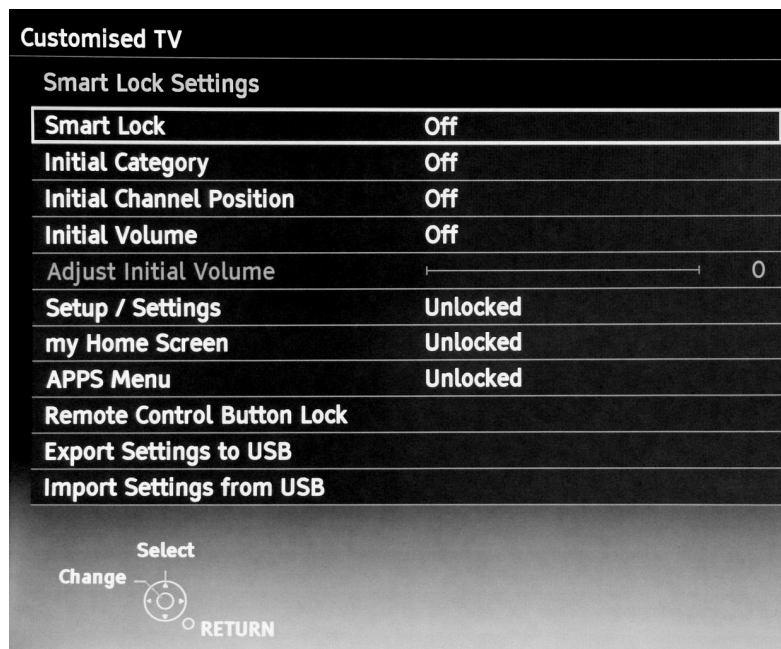
2. Access command to the Customised TV setup menu.
   Smart Lock (Customised TV) Menu is only enabled on DVB input. Menu will not launch on Analogue or any External input.
   In order to display the Customised TV setup menu,please enter the following command:
   [TV] : Vol.[Down] + [REMOTE] : Green button (3 times)
   Then, the Customised TV setup menu is displayed.

Customised TV	
Smart Lock Settings	
Smart Lock	Off
Initial Category	Off
Initial Channel Position	Off
Initial Volume	Off
Adjust Initial Volume	0
Setup / Settings	Unlocked
my Home Screen	Unlocked
APPS Menu	Unlocked
Remote Control Button Lock	
Export Settings to USB	
Import Settings from USB	

Select
Change
RETURN

ITEM	Function	Note
Smart Lock	Selection: ON/OFF	Smart Lock (Customised TV) Menu is only enabled on DVB input. Menu will not launch on Analogue or any External input.
Initial Category	Selection: Off/All DVB Channels/Free Channels/Radio/HDTV/UHDTV *Activated: pressing OK.	If customer press OK, the selected category will be the default list for any last digital TV input at power up. If category is invalid on some input => Don't care. Invalid initial category is not set on TV start up, instead last category is used but invalid initial category entry remains in Smart Lock Menu because it may be valid for other input by intention.
**Initial Channel Position	Selection: Off/Enter *Activated: pressing OK. Range: 0 to 9999	Do not check channel number on input. Selected position will be default for all DVB input independent of Category. If position is invalid on some list => Don't care. Invalid initial position is not set/tuned on TV start up, instead last position is used but invalid initial position entry remains in Smart Lock Menu because it may be valid for other lists by intention.
Initial Volume	Selection: Off/ON *Activated: pressing OK.	Adjust Initial Volume item accessible/effective if Initial Volume is set to "On".
**Adjust Initial Volume	Range: 0 to 100	Adjusting Smart Lock Initial Volume may also modify hotel mode Max Volume setting if Initial Volume is set higher than Max Volume. Value will be reset to "0" if setting Initial Volume to Off.
Setup / Settings	Selection: Unlocked/Locked *Activated: pressing OK.	When locked: Setup and Network Setup will be hidden in Menu and therefore not accessible anymore.
my Home Screen	Selection: Unlocked/Locked *Activated: pressing OK.	If locked: Related items grey out Home Screen can be launched by HOME button when HS locked. Cannot change Home Screen (HOME button invalid if HS is displayed) Tutorial button is also locked if HS is locked.
Apps Menu	Selection: Unlocked/Locked *Activated: pressing OK.	When locked: -Apps card will not displayed in Home Screen. -APPS and MY APP button in Remote Control Button Lock are locked automatically. But lock/unlock can be selected individually for each button in Remote Control Button Lock.
Remote Control Button Lock	Press OK to show button list. Selection: TV/ AV/ TEXT/ STTL/ ASPECT/ APPS/ HOME/ GUIDE/ OPTION/ COLOR KEYS/ 0..9/ eHELP/LAST VIEW/ AV CONTROL/ MY APP/OFF TIMER	Button will be non functional if check box is checked.
Export Settings to USB	Press OK for Exporting Setting to USB device	Before exporting data: Main POWER OFF/ON (at Sidepanel) is required if Settings have been modified! Channel List is not exported. Only eeprom settings exported. Additionally last Selected Home Screen is also copied. Additionally Smart Banner On/Off setting is also copied (Ref: Setup/Display Settings/Smart Banner)
Import Settings from USB	Press OK to Import Settings. Press EXIT to return.	Channel List is not imported. Only eeprom settings imported. Additionally last Selected Home Screen is also copied. Additionally Smart Banner On/Off setting is also copied. (Ref: Setup/Display Settings/Smart Banner) After importing data: Main POWER OFF/ON (at Sidepanel) is required for imported settings to become effective!

**

"Adjust Initial Volume" and "Initial Channel Position" cannot be reset on Shipping Condition because settings
are shared with Hotel Mode. (Hotel Mode settings are not beeing reset by Shipping Condition).

Note:
Main POWER OFF/ON (at TV Sidepanel) is always required for changes to become effective!

Hotel copy vs. Smart Lock copy:

Menu	Data	Compatible
Hotel Copy	TV setup is cloned:eeprom (incl. smart lock), svldb	Model ID is checked => Same model only
Smart Lock	Copy Smart Lock settings only	Shall be model independent (copy to all same years models at least)

Coexistence of Hotel Mode and Smart Lock:

Hotel Mode	Smart Lock	Behaviour
Off	Off	Normal TV mode, no locks.
Off	On	Apply Smart Lock settings only. Hotel Mode exclusive settings are not active. Shared settings (e.g. Initial Position) may be also updated in Hotel Mode menu when changed in Smart Lock menu. Shared settings may be changed in Hotel Mode menu even hotel mode is not active. (This will not be restricted).
On	Off	Apply Hotel Mode settings only. Smart lock exclusive settings are not active. Shared settings (e.g. Initial Position) may be also updated in Smart Lock menu when changed in Hotel Mode menu. Shared settings may be changed in Smart Lock menu even smart lock is not active. (This will not be restricted).
On	On	All settings are active, shared settings can still be changed within both menus.

Other Information:
- Network Download NWDL cannot be announced if Apps button is locked.

3. To exit the "Customised TV":
   The main power OFF/ON (at TV side panel).

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,
   please enter the following command (within 2 second).
   [TV] : Vol.[Down] + [REMOTE] : AV (3 times)

   Then, the Hotel mode setup menu is displayed.

```
Hotel mode

 Hotel mode            Off

 Initial INPUT         Off

 Initial POS           Off

 Initial VOL Level     Off

 Maximum VOL Level     100

 Button Lock           Off

 Remote Lock           Off

 Private Information    Keep


        Select
Change
          RETURN
```

3. To exit the "Hotel mode":
   Switch off the power with the [POWER] button
   on the main unit or the [POWER] button
   on the remote control or pressing [EXIT] button
   on the remote control.

4. Explain the Hotel mode setup menu.

ITEM	Function
Hotel Mode	Select hotel mode ON/OFF
Initial INPUT	Select input signal modes. Set the input, when each time power is switched on. Selection: Off/DVB-S/DVB-T/AV/HDMI1/HDMI2 *Off: give priority to the last memory. However, Euro Model is compulsorily set to TV.
Initial POS	Select programme number. Selection: Off/0 to 99 *Off: give priority to the last memory
Initial VOL Level	Adjust the volume when each time power is switched on. Selection/Range: Off/0 to 100 *Off: give priority to the last memory
Maximum VOL Level	Adjust maximum volume. Range: 0 to 100
Button Lock	Select local key conditions. Selection: Off/SETUP/MENU *Off: altogether valid *Setup: only F-key is invalid (Tuning guide (menu) can not be selected.) *MENU: only F-key is invalid (only Volume/Mute can be selected.)
Remote Lock	Select remote control key conditions. Selected" Off/SETUP/MENU *Off: altogether valid *Setup: only Setup menu is invalid MENU: Picture/Sound/Setup menu are invalid
Private Information	Select private information for VIERA Cast is Keep or Reset if Hotel mode is set to [On] when TV power on. Selection : Keep/Reset •Keep: private information for VIERA Cast is keep •Reset: private information for VIERA Cast is reset

Hotel Mode

(Only for TX-40ESW404)

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,
   please enter the following command (within 2
   second).
   [TV] : Vol.[Down] + [REMOTE] : AV (3 times)

   Then, the Hotel mode setup menu is displayed.

Hotel mode	
Hotel mode	Off
Initial INPUT	Off
Initial POS	Off
Initial VOL Level	Off
Maximum VOL Level	100
Button Lock	Off
Remote Lock	Off
Private Information	Keep
Quick Start	Off
Welcome Screen	Off
Import Welcome Screen	
DVB-C Auto Channel List Update	Off
Hotel Portal at power on	Off
Start Hotel Portal	Off
Import Hotel Portal Url	

Select
Change ─ ◁◇▷
   ▽
     ○ RETURN

3. To exit the "Hotel mode":
   Switch off the power with the [POWER] button
   on the main unit or the [POWER] button
   on the remote control or pressing [EXIT] button
   on the remote control.

4. Explain the Hotel mode setup menu.

*Quick Start setting can be copied to other TVs using
 hotel model clone.
 Clone from a product whose default configuration has
 been changed may result in higher energy consumption
 of the product.

**This item cannot be selected unless Hotel Portal URL was set.
   The auto and manual startup settings are independent
   from each other, e.g. it is possible to have only
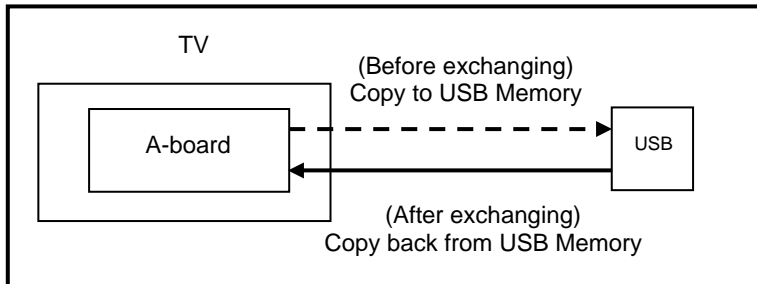   auto startup but no manual startup set…

ITEM	Function
Hotel Mode	Select hotel mode ON/OFF
Initial INPUT	Select input signal modes. Set the input, when each time power is switched on. Selection: Off/DVB-S/DVB-T/AV/HDMI1/HDMI2 *Off: give priority to the last memory. However, Euro Model is compulsorily set to TV.
Initial POS	Select programme number. Selection: Off/0 to 99 *Off: give priority to the last memory
Initial VOL Level	Adjust the volume when each time power is switched on. Selection/Range: Off/0 to 100 *Off: give priority to the last memory
Maximum VOL Level	Adjust maximum volume. Range: 0 to 100

Button Lock	Select local key conditions.
	Selection:
	Off/SETUP/MENU
	*Off: altogether valid
	*Setup: only F-key is invalid
	  (Tuning guide (menu) can not be selected.)
	*MENU: only F-key is invalid
	  (only Volume/Mute can be selected.)

Remote Lock	Select remote control key conditions. Selected: Off/SETUP/MENU/ VOD *Off: altogether valid *Setup: only Setup menu is invalid MENU: Picture/Sound/Setup menu are invalid VOD:Netflix service is invalid
Private Information	Select private information for VIERA Cast is Keep or Reset if Hotel mode is set to [On] when TV power on. Selection : Keep/Reset •Keep: private information for VIERA Cast is keep •Reset: private information for VIERA Cast is reset
Quick Start *	TV will operate in active standby if Quick Start is "On" and Hotel Mode is enabled. Orange LED indicates active standby. Selection: On/Off **Note**: Changing the default configuration may result in higher energy consumption of the product.
Welcome Screen	Can be switched on only if "Welcome screen" was installed. Otherwise, item is inactive. Welcome Image will be displayed as soon as possible (approx. 6 seconds after power-up).
Import Welcome Screen	Welcome message must be loaded and activated in the hotel mode. The file name must be "welcome.jpg"(file size no bigger than 1MB). Upload "welcome.jpg" to TV set form USB stick. Welcome Screen will be displayed at power-up and will disappear automatically or may be terminated by any key press. Welcome image can be cloned to other TV sets using "hotel.pwd" clone feature.
DVB-C Auto Channel List Update	The possibility to enable the automatic service list update and to the "New service found" pop-up message (or disable "new service found" popup . Selection: On/Off
Hotel Portal at power on **	Automatically startup Hotel Portal when TV powers up. Selected: Off (default)/On
Start Hotel Portal **	Allow user to start a Portal-Application with dedicated key. Selection: Off/Home/Apps/Menu/My App
Import Hotel Portal URL	Import Hotel Portal with USB: Filename must be "hotel_url.txt" Content of hotel_url.txt: e.g. http://192.168.1.1/hotel/index.html Located in root directory. Existing file will be overwritten. Activation: turn Off/On TV set. File will be deleted at shipment : While pressing [VOLUME (-)] button on the main unit, press [MENU] button on the remote control for more than 3 seconds.

Data Copy by USB Memory
Purpose
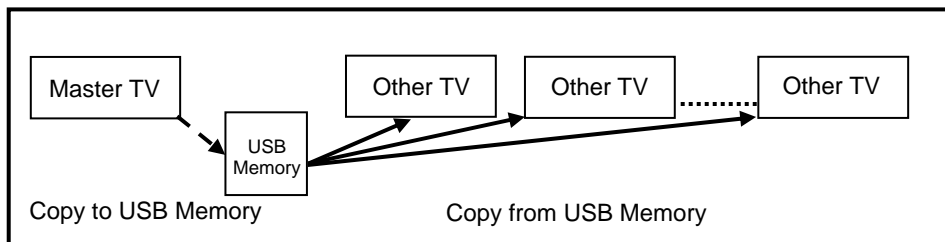## a) Board replacement (Copy the data when exchanging A-board):
When exchanging A-board, the data in original A-board can be copied to USB Memory and then copy to new A-board.

TV

(Before exchanging)
Copy to USB Memory

A-board ← → USB

(After exchanging)
Copy back from USB Memory

Following data can be copied.
  User setting data
  (inc. Hotel mode setting data)
  Channel scan 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 USB Memory and the copy to other TVs.

Master TV   Other TV   Other TV   Other TV

USB Memory

Copy to USB Memory   Copy from USB Memory

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

Preparation
Make pwd file as startup file for (a) or (b) in an empty USB Memory.
1. Insert an empty USB Memory to your PC.
2. Right-click a blank area in a USB Memory 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 (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.
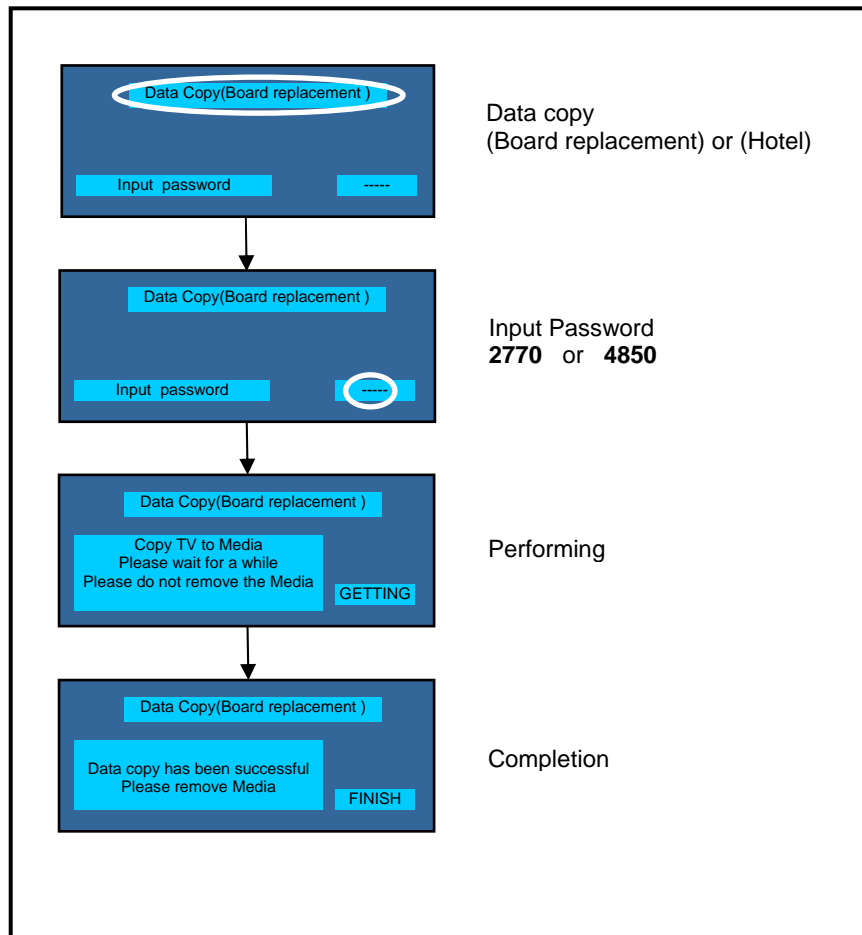 No any other file should be in USB Memory.

Data Copy from TV set to USB Memory

1. Turn on the TV set.
2. Insert USB Memory with a startup file (pwd file) to USB Terminal.
   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 USB Memory.
   It takes around 1 to 2 minutes maximum for copying.
4. After the completion of copying to USB Memory, remove USB Memory from TV set.
5. Turn off the TV set.

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

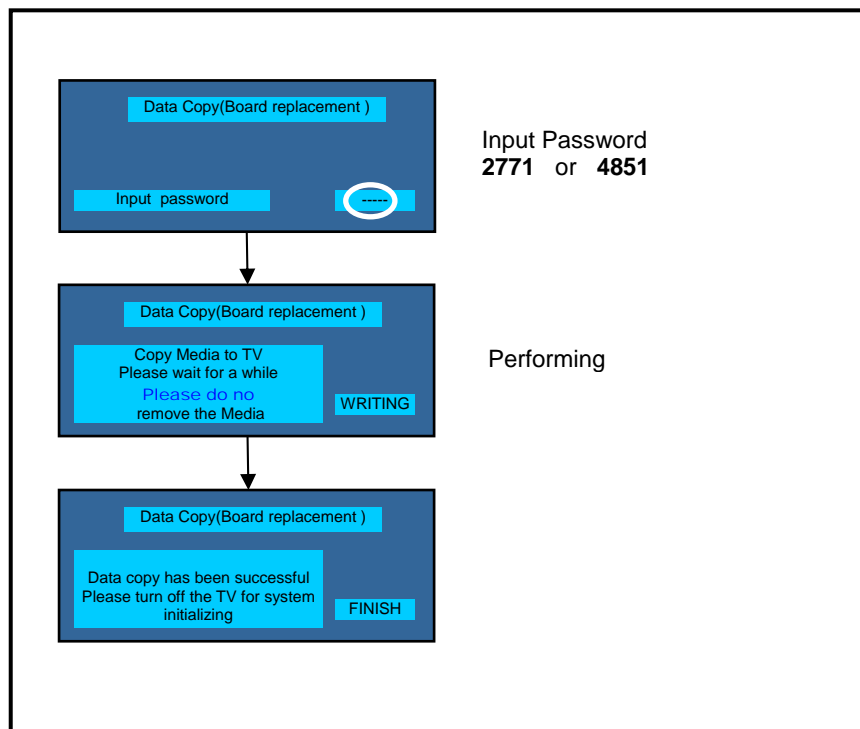|	
Data Copy(Board replacement) Input password -----	Data copy (Board replacement) or (Hotel)
Data Copy(Board replacement) Input password -----	Input Password **2770** or **4850**
Data Copy(Board replacement) Copy TV to Media Please wait for a while Please do not remove the Media GETTING	Performing
Data Copy(Board replacement) Data copy has been successful Please remove Media FINISH	Completion

Data Copy from USB Memory to TV set

1. Turn on the TV set.
2. Insert USB Memory with Data to USB Terminal.
   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 USB Memory to TV set.
4. After the completion of copying to USB Memory, remove USB Memory 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 for board replacement does not work.
2. This function can be effective among the same model numbers.

Data Copy(Board replacement)

Input password   -----

Input Password
2771 or **4851**

Data Copy(Board replacement)

Copy Media to TV
Please wait for a while
Please do no
remove the Media   WRITING

Performing

Data Copy(Board replacement)

Data copy has been successful
Please turn off the TV for system
initializing   FINISH

Option Bytes Description

OPTION1			
	b1	TEXT Ch Refresh	ON (1) / OFF (0)
	b2	ID-1	ON (1) / OFF (0)
	b3	Macrovision Auto-judge	ON (1) / OFF (0)
	b5	Reserved	-
	b6	Enable HDMI force reset	ON (1) / OFF (0)
	b7	Reserved	-
OPTION2			
	b0	Adjust Igain enable	ON (1) / OFF (0)
	b1	A2 BG enable (5.5MHz)	ON (1) / OFF (0)
	b2	A2 DK1 enable (6.26MHz)	ON (1) / OFF (0)
	b3	A2 DK3 enable (5.742MHz)	ON (1) / OFF (0)
	b4	NICAM scan	ON (1) / OFF (0)
	b5	NICAM BG enable (5.5MHz)	ON (1) / OFF (0)
	b6	NICAM I enable (6.0MHz)	ON (1) / OFF (0)
	b7	NICAM DK enable (6.5MHz)	ON (1) / OFF (0)
OPTION3			
	b0	NICAM priority	ON (1) / OFF (0)
	b1	Reserved	-
	b2	Reserved	-
	b3	A2 DK2 enable	ON (1) / OFF (0)
	b4	Inhibition of countermeasure for SIF signal drop	ON (1) / OFF (0)
	b5	Get onid from physical CH (CHINA)	ON (1) / OFF (0)
	b6	SSU search enable for HOTEL model	ON (1) / OFF (0)
	b7	SASO mute (ASIA)	ON (1) / OFF (0)
OPTION4			
	b0	Countermeasure for Taiwan NTSC noise sound	ON (1) / OFF (0)
	b2	3DYC color motion detect	ON (1) / OFF (0)
	b3	RF Clamp Current minimum (TAIWAN)	ON (1) / OFF (0)
	b4	Reserved	-
	b5	Reserved	-
	b6	Reserved	-
	b7	Enable workaround for Polsat CAM problem (POLAND)	ON (1) / OFF (0)
OPTION16			
	b0	PIP/MW (derivate models)	ON (1) / OFF (0)
	b2	Digital Remaster sound menu enable (derivate models)	ON (1) / OFF (0)
	b3	Surround "Virtual Surround+"sound menu enable (derivate models)	ON (1) / OFF (0)
	b4	Ambience sound menu enable (derivate models)	ON (1) / OFF (0)
	b5	Control4 function enable	ON (1) / OFF (0)
	b6	Reserved	-
	b7	Reserved	-

Self Check

How to access

Self-check indication only:
While pressing [VOLUME (-)] button on the main unit, press [BLUE] button on the remote control.

Self-check indication and forced to factory shipment setting:
While pressing [VOLUME (-)] button on the main unit, press [MENU] button on the remote control for more than 3 seconds.

How to exit

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

TX-40ES403E

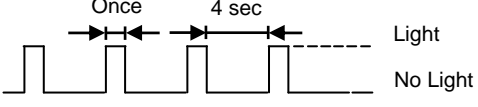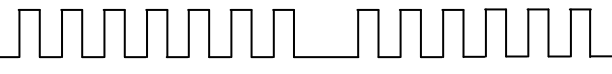| Self Check Complete		
H14TUN O.K. H17LAN O.K. H00FE O.K. H00SAT-TU O.K. H96ID O.K. H97ID2 O.K. H42WIFI O.K.	PEAKS-SOFT * .*** PEAKS-EEP ** .** **** LSI-PACKAGE * .*** LSI-RELEASE * .** AQ-PACKAGE * .*** AQ-RELEASE * .** STBY-SOFT * .** .** STBY-EEP * .** **** INFO-1 ******** INFO-2 ******** INFO-3 ********	MODEL ID 0e 0300015c 00000200

TX-40ESW404

Self Check Complete		
H14TUN O.K. H17LAN O.K. H00FE O.K. H00SAT-TU O.K. H96ID O.K. H97ID2 O.K. H42WIFI O.K.	PEAKS-SOFT * .*** PEAKS-EEP ** .** **** LSI-PACKAGE * .*** LSI-RELEASE * .** AQ-PACKAGE * .*** AQ-RELEASE * .** STBY-SOFT * .** .** STBY-EEP * .** **** INFO-1 ******** INFO-2 ******** INFO-3 ********	MODEL ID 0e 0300015b 00000200

Display	Ref. No.	Description	P.C.B.
H14TUN	TU6710	TUNER A/DVB-T2/T/C/S/S2	A-Board
H17LAN	IC8000/IC8920	Ethernet/MAC	A-Board/LAN
H00FE	IC6800	DVB-T2/T/C/S2/S Demodulator	A-Board
H00SAT-TU	TU6710	TUNER A/DVB-T2/T/C/S/S2	A-Board
H96ID	IC8920	CI+,HDCP2.2, DTCP-IP, C2MOD	A-Board
H97ID2	IC8920	Netflix, Widevine	A-Board
H42WIFI	IC8000 N5HBZ0000114	IC Main Processor Wifi Dongle	A-Board Wifi Dongle

If the CCU ports have been checked and found to be incorrect or not located then " - - " will appear in place of "O.K.".

Power LED blinking timing chart

1. Subject
   Information of LED Flashing timing chart.

2. Contents
   When abnormality has occurred the unit, the protection circuit operates and reset to the standby mode. At this time, the defective block can be identified by number of blinking of the Power LED on the front panel of the unit.

Blinking times	Blinking timing	Contents	Check point
1	Once 4 sec Light No Light	BL_SOS	LCD PANEL P BOARD
7		SUB3.3V_SOS Over-voltage_SOS	A BOARD P BOARD
9		SOUND_SOS	A BOARD SPEAKERS
13		EMERGENCY SOS	A BOARD

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 [YELLOW] button of the remote control three times.

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

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.