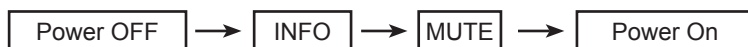


4-3. Factory Mode Adjustments

4-3-1 Entering Factory Mode

To enter 'Service Mode' Press the remote -control keys in this sequence :

- If you do not have Factory remote - control



4-3-2 How to Access Service Mode

Using the Customer Remote

1. Turn the power off and set to stand-by mode
2. Press the remote buttons in this order; POWER OFF - INFO - MUTE - POWER ON to turn the set on.
3. The set turns on and enters service mode. This may take approximately 20 seconds.
4. Press the Power button to exit and store data in memory.
- If you fail to enter service mode, repeat steps 1 and 2 above.
5. Initial SERVICE MODE DISPLAY State

OPTION
ADC/WB
Control
Advanced
Expert
T-CRLPEUC-XXXX
T-CRLPEUFC-XXXX
T-CRLPEUS-XXXX
DTP-LP-XXXX-XX
DTP-LP-App-XXXX-XX
OPTION : F100 00
ADC : HDMI X COMP X PC X AV X
EDID : SUCCESS
HDCP : SUCCESS
Build Date : XX-XX-XXXX
Date Of Purchase : XX/XX/XX

* How to enter the hidden factory mode.

- a. into the factory mode
- b. move the tap to Advanced
- c. key input : 0 + 0 + 0 + 0

** hidden menu : Advanced

6. Buttons operations withn Service Mode

Menu	Full Menu Display/Move to Parent Menu
Direction Keys ▲/▼	Item Selection by Moving the Cursor
Direction Keys ◀/▶	Data Increase / Decrease for the Selected Item
Source	Cycles through the active input source that are connected to the unit

4-3-3 Factory Data

OPTION	Factory Name	Data	Range
	Factory Reset		
	Type		19D6THOC, 19I6THOC... (PANEL, INCH), 19A6THOC
	Model	LB450	LB530 / LB540 / LB550 / LB460 / LB360 / LB650 / LB530S
	TUNER	AUTO	ALPS
	Region	EU	
	DDR	SAMSUNG	SAMSUNG / Etron
	Light Effect	Off	On / Off
	Ch Table	SUWON	SUWON/SESK/SEH/TTSEC/SDMA/ SERK/SEINSAVIA/SIEL/TSE
	Medialink type		
	Local Set	Other	Others/Russia
	PDP GROUP		

ADC/WB	Factory Name
	ADC ADC Tarhet ADC RESULT WB

ADC	Factory Name	Data	Range
	AV Calibration	Success	Success / Failure
	Comp Calibration	Success	Success / Failure
	PC Calibration	Success	Success / Failure
	HDMI Calibration	Success	Success / Failure

ADC Target	Factory Name	Data	Range
	1st_AV_Low	18	0 ~ 255
	1st_AV_High	220	0 ~ 255
	1st_AV_Delta	1	0 ~ 255
	1st_COMP_Low	16	0 ~ 255
	1st_COMP_High	235	0 ~ 255
	1st_COMP_Delta	1	0 ~ 255
	1st_PC_Low	2	0 ~ 255
	1st_PC_High	253	0 ~ 255
	1st_PC_Delta	1	0 ~ 255
	2nd_Low	1	0 ~ 255
	2nd_High	235	0 ~ 255
	2nd_Delta	1	0 ~ 255

ADC RESULT	Factory Name	Mode				Range
		AV / RF	Component	HDMI / DTV / HDMI-PC	PC	
	1st_AV_Gain	136	134	136	192	0 ~ 255
	1st_AV_Offset	136	134	136	192	0 ~ 255
	1st_Comp_Gain	136	134	136	192	0 ~ 255
	1st_Comp_Gain_Cb	107	67	100	32	0 ~ 255
	1st_Comp_Gain_Cr	107	67	100	32	0 ~ 255
	1st_Comp_Offset	107	67	100	32	0 ~ 255
	1st_Comp_Offset_Cb	136	134	136	192	0 ~ 255
	1st_Comp_Offset_Cr	136	134	136	192	0 ~ 255
	1st_PC_R_Gain	136	134	136	192	0 ~ 255
	1st_PC_G_Gain	107	67	100	32	0 ~ 255
	1st_PC_B_Gain	136	134	136	192	0 ~ 255
	1st_PC_R_Offset	136	134	136	192	0 ~ 255
	1st_PC_G_Offset	136	134	136	192	0 ~ 255
	1st_PC_B_Offset	107	67	100	32	0 ~ 255
	2nd_R_Offset	107	67	100	32	0 ~ 255
	2nd_G_Offset	107	67	100	32	0 ~ 255
	2nd_B_Offset	136	134	136	192	0 ~ 255
	2nd_R_Gain	136	134	136	192	0 ~ 255
	2nd_G_Gain	136	134	136	192	0 ~ 255
	2nd_B_Gain	107	67	100	32	0 ~ 255

WB	Factory Name	Mode			
		AV	Component	HDMI / DTV	PC
	Sub Brightness	128	128	128	128
	R_Offset	512	512	512	512
	G_Offset	512	512	512	512
	B_Offset	512	512	512	512
	Sub Contrast	128	128	128	128
	R_Gain	512	512	512	512
	G_Gain	512	512	512	512
	B_Gain	512	512	512	512
	Movie R Offset	128	128	128	128
	Movie B Offset	512	512	512	512
	Movie R Gain	512	512	512	512
	Movie B Gain	512	512	512	512

Control	Factory Name
	EDID Sub Option PDP Option Hotel Option Shop Option Sound Config Option

EDID	Factory Name	Data	Range
	EDID ON/OFF	Off	On / Off
	EDID WRITE ALL	Success	Success / Failure
	EDID WRITE PC	Success	Success / Failure
	EDID WRITE DVI	Success	Success / Failure
	EDID WRITE HDMI1	Success	Success / Failure
	EDID WRITE HDMI2	Success	Success / Failure
	EDID WRITE HDMI3	Success	Success / Failure
	EDID WRITE HDMI4	Success	Success / Failure
	EDID VERSION	HDMI 1.3	HDMI 1.2 / HDMI 1.3

4. Troubleshooting

Sub Option	Factory Name	Data	Range
	Mute Time(VIDEO)	4	0 ~ 10
	ready	Failure	Success / Failure
	TTX LIST	FOLF	FLOF / LIST
	TTX	On	On / Off
	TTX Group	Lang OSD	Lang OSD/ W Europe/E Europe/Russia/Greek/Turkey/Arab/Farsi/ArabHbrw
	Hotplug	On	On / Off
	Hotplugcontrol	On	On / Off
	Spread Spectrum		
	Auto Power	On	On / Off
	DDR		
	Arab	Off	On / Off
	NT Conversion	Off	On / Off
	Mirror	On	On / Off
	HDMI EQ1	Middle	Low / Middle / High / Strong
	HDMI EQ2	Middle	Low / Middle / High / Strong
	HDMI EQ3	Middle	Low / Middle / High / Strong
	HDMI EQ4	Middle	Low / Middle / High / Strong
	EER Count		
	WM Calib		
	Panel Enter Key		
	Panel Display Time	XHr	
	CHECKSUM	0x0000	
	View Log		
	Font Data Viewer		
	Dimm Type	EXT	INT / EXT / INT_NEG / INT_POS / EXT_NEG
	Gamma	Off	Off / 0.85 / 0.88 / 0.90 / 0.93 / 0.95 / 0.98
	Carrier Mute	Off	On / Off
	Anynet+	On	On / Off
	HPD Polarity		
	High Devi	Off	On / Off
	Volum Curve	NT	NT / EU / EA
	HotPlug Delay	9	0 ~ 63
	HP Ident	Low	Low / High
	PC Ident	On	On / Off
	Language	China	
	Info Live		
	Watchdog	On	On / Off
	LVDS Format	JEIDA	JEDIA / VESA
	OSD Resolution	1920*1080	
	Bus Stop		
	OTA Code		
	Panel Auto Setting		
	OTA Duration Test		
	Alternate Del		
	Ignore VCT Version	Off	

Spread Spectrum	Factory Name	Data	Range
	Spread Spectrum Period Amplitude DDR Spread	On 60K 2 2% Spread	On / Off 40K / 50K / 60K 0 / 0.5 / 1 / 1.5 / 2 Off / 1% Spread / 2% Spread

PDP Option	Factory Name	Data	Range
	PIXEL SHIFT TEST LOGIC CONNECT PATTERN SELECT PANEL VERSION PANEL INCH PANEL TYPE PANEL TEMPERATURE LOGIC SW VERSION LOGIC SW CHECKSUM SAPC_Timer APC_Speed LOGIC USB D/L	Off Off 0 On Slow Failure	On / off On / off 0 ~ 31 On / off Slow / Fast Not Match / Match / Failure

Hotel Option	Factory Name	Data	Range
	Hotel Mode Power On Channel Power On Source Power On Volume Min Volume Max Volume Panel Button Lock Pic Menu Lock Music Mode (AV) Music Mode (PC) Music Mode (Comp) Music Mode Backlight Menu Display Power On Option Ch Remap On/Off Program Ch Original Ch/Src Auto PC Energy Saving Cloning : TV to USB Cloning : USB to TV Welcome Message	Off 3 TV 10 0 100 Off Off Off Off Off Off On Last Option Off Off	On / Off TV / S-Video / Comp1 / PC / HDMI1 / HDMI2 / HDMI4 On / Off On / Off On / Off On / Off On / Off On / Off On / Off Standby / Power On / Last Option On / Off Off / Low / Mid / High / Auto

Shop Option	Factory Name	Data	Range
	Shop Mode USB DEMO ON (SEC) USB DEMO OFF (SEC)	Off	On / Off

Sound	Factory Name	Data	Range
	FM Prescale	20	
	AM Prescale	21	
	Nicam Prescale	20	
	A2 M2S Threshold	10	
	A2 S2M Threshold	10	
	A2 PilotPhaseOn	0	
	A2 PilotPhaseOff	0	
	A2 Identon	0	
	A2 Identoff	0	
	A2 Carr1AmpOnThr	16h	
	A2 Carr1AmpOffThr	14h	
	A2 Carrier1SNRonThr	0	
	A2 Carrier1SNRoffThr	0	
	A2 Carr2AmpOnThr	0	
	A2 Carr2AmpOffThr	0	
	A2 Carrier2SNRonThr	0	
	A2 Carrier2SNRoffThr	0	
	Nicam Sig Error On	16h	
	Nicam Sig Error Off	14h	
	Compression mode	RF	
	Dolby Test Mode	OFF	
	DTV Level	0dB	
	Master Vol	1EH	
	PWM Modulation	FEH	
	DRC1 Threshold	12H	
	DRC2 Threshold	12H	
	Speaker EQ	On	
	SC1 Vol	16	
	SC2 Vol	16	
	Audio Delay	60	
	SUB AMP Master Vol		
	SUB AMP PWM Mod		
	SUB DRC Thresh		
	SUB Speaker EQ		

Config Option	Factory Name	Data	Range
	AV Number	2	0 ~ 2
	SVIDEO Number	0	0 ~ 1
	COMP Number	2	0 ~ 2
	HDMI Number	4	0 ~ 4
	SCART Number	0	
	DVI Number	1	0 ~ 1
	HP Number	1	0 ~ 1
	USB PORT		
	LNA SUPPORT	On	On / Off
	MFT OFFSET		

Advanced	Factory Name
	FBE WB Movie EPA Standard ADJUST YC_Delay SHARPNESS PE PQ Others Color Space EEPROM RESET

WB Movie	Factory Name	Data	Range
	WB Movie	Off	On / Off
	Color Mode	---	Dynamic / Standard / Movie
	Color Tone	---	Cool / Normal / Warm1 / Warm2
	Msub Brigh	---	0 ~ 255
	Msub Contr	---	0 ~ 255
	W1_RGAIN	---	0 ~ 255
	W1_BGAIN	---	0 ~ 255
	W1_ROFFS	---	0 ~ 255
	W1_BOFFS	---	0 ~ 255
	W2_RGAIN	---	0 ~ 255
	W2_BGAIN	---	0 ~ 255
	W2_ROFFS	---	0 ~ 255
	W2_BOFFS	---	0 ~ 255
	N_RGAIN	---	0 ~ 255
	N_BGAIN	---	0 ~ 255
	N_ROFFS	---	0 ~ 255
	N_BOFFS	---	0 ~ 255
	Movie Contr	---	3 ~ 100
	Movie Brigh	---	2 ~ 100
	Movie Color	---	1 ~ 100
	Movie Sharp	---	0 ~ 100
	Movie Tint	---	0 ~ 50
	Movie BkLight	---	0 ~ 10
	M.Gamma	---	Off / 0.85 / 0.88 / 0.90 / 0.93 / 0.95 / 0.98 / M1 / M2 / M3 / M4
	M_Sub Gamma	---	-3 ~ +3

EPA Standard	Factory Name	Data	Range
	Std Contr	95	0 ~ 100
	Std Bright	45	0 ~ 100
	Std Sharp	50	0 ~ 100
	Std Color	50	0 ~ 100
	Std Tint	50	0 ~ 100
	Std Backlight	7	0 ~ 10

ADJUST	Factory Name	Data	Range
	Dynamic Dimming	Off	On / Off
	LNA Plus		
	Power Key Protect	Off	On / Off
	Uart Select	Auto Wall	Auto Wall / Debug / MDC / On1 / On2
	Debug Mode	Debug Off	Debug Off / Debug Smart / Debug RunTime
	Back End Mute		
	PDP FRC		
	Visual Test	Disable	Disable / Enable
	Standby Mode Time	45 Min	2 Min / 45 Min
	Delete alt.ver	2 Flash	
	OTA confirm Time	90 Min	2 Min / 90 Min
	OTA limit Time	3 Hour	3 Min / 3 Hour
	Dynamic CE	Off	On / Off
	FWC	Off	On / Off
	1080p 48Hz	On	On / Off
	PWM Max	100	1 ~ 100
	Quick Start		
	DTV LNA	Auto	Auto / On / Off
	HDCP Download	On	On / Off
	Test Pattern	Off	Off / 1 ~ 13

LNA Plus	Factory Name	Data	Range
	RF dB1 Level	3	0 ~ 255
	RF dB2 Level	6	0 ~ 255
	RF dB3 Level	12	0 ~ 255
	RF dB4 Level	31	0 ~ 255

YC_Delay	Factory Name	Data	Range
	PAL BG	1	0 ~ 3
	PAL DK	1	0 ~ 3
	PAL I	1	0 ~ 3
	SECAM BG	4	0 ~ 7
	SECAM DK	4	0 ~ 7
	SECAM I	4	0 ~ 7
	NTSC 358	1	0 ~ 3
	NTSC 443	1	0 ~ 3
	AV PAL	1	0 ~ 3
	AV SECAM	4	0 ~ 7
	AV NT358	1	0 ~ 3
	AV NT443	1	0 ~ 3
	AV PAL60	1	0 ~ 3

SHARPNESS	Factory Name	Data							
		Data	Range	component		HDMI		DTV	
		RF	CVBS	SD	HD (720p)	SD	HD (720p)	SD	HD (720p)
	H1 Gain	25	25	25	20	25	20	25	20
	H2 Gain	12	12	12	8	12	8	12	8
	H3 Gain	10	10	C	8	8	8	C	8
	H4 Gain	8	8	8	8	8	8	8	8
	V1 Gain	20	20	20	20	20	20	20	20
	V2 Gain	12	12	12	8	12	8	12	8
	H overshoot	20	20	20	FF	20	FF	20	FF
	V overshoot	20	20	20	20	20	20	20	20
	H undershoot	20	20	20	FF	20	FF	20	FF
	V undershoot	20	20	20	20	20	20	20	20
	Coring TH2	1	1	1	1	1	1	1	1
	Coring TH1	1	1	1	1	1	1	1	1

SHARPNESS	Data		Range
	Comp/HDMI/DTV 720p	PC / HDMI PC	
	20	8	0 ~ 3F
	8	8	0 ~ 3F
	8	8	0 ~ 3F
	8	8	0 ~ 3F
	20	8	0 ~ 3F
	8	8	0 ~ 3F
	FF	0	0 ~ FF
	20	0	0 ~ FF
	FF	0	0 ~ FF
	20	0	0 ~ FF
	1	0	0 ~ F
	1	0	0 ~ F

PE	Factory Name	Data							Range
		RF	CVBS	component		HDMI	DTV	PC / HDMI PC	
				SD	HD				
	Skin x	0	0	0	0	0	0	0	0 ~ 11
	Skin y	0	0	0	0	0	0	0	0 ~ 11
	B_slope	A0	A0	A0	A0	A0	A0	80	80~FF
	DLC_ML	60	60	60	60	60	60	60	0~FF
	DLC_MH	70	70	70	70	70	70	70	0~FF
	DLC_H	EB	EB	EB	EB	EB	EB	EB	0~FF
	Skin_SAT	0	0	0	0	0	0	0	0~F
	Skin_HUE	40	40	40	40	40	40	0	0~7F
	M_Skin_HUE	40	40	40	40	40	40	0	0~7F
	M_Skin_x	0	0	0	0	0	0	0	0 ~ 11
	M_Skin_y	0	0	0	0	0	0	0	0 ~ 11
	Mid_color_level	180	180	180	180	180	180	180	0 ~ 255
	M_Mid_color_level	180	180	180	180	180	180	180	0 ~ 255

4. Troubleshooting

PQ Others	Factory Name	Data	Range
	7.5 IRE NTSC 7.5 IRE	On 0	On / Off 0 ~ 60

Color Space	Factory Name	RF AV	Comp SD HDMI SD DTV SD	COMP HD HDMI HD DTV HD	RF AV	Comp SD HDMI SD DTV SD	COMP HD HDMI HD DTV HD	PC/ HDMI PC	Range
		Native	Native	Native	Auto	Auto	Auto	-	Color Space
	Red Sat	4	4	4	0	0	0	0	0~F
	Red Hue	40	40	40	40	40	40	40	0~7F
	Green Sat	7	7	7	0	0	0	0	0~F
	Green Hue	7F	7F	7F	40	40	40	40	0~7F
	Blue Sat	A	A	A	0	0	0	0	0~F
	Blue Hue	50	50	50	40	40	40	40	0~7F
	Cyan Sat	A	A	A	0	0	0	0	0~F
	Cyan Hue	50	50	50	40	40	40	40	0~7F
	Magenta Sat	4	4	4	0	0	0	0	0~F
	Magenta Hue	40	40	40	40	40	40	40	0~7F
	Yellow Sat	2	2	2	0	0	0	0	0~F
	Yellow Hue	40	40	40	40	40	40	40	0~7F
	FWC CB	15	15	15	15	15	15	15	0~30
	FWC CR	15	15	15	15	15	15	15	0~30

EEPROM RESET	Factory Name	Data
	EEPROM RESET	Enter - Set off
	NVR All Clear	Off/On

Tuner Status (Read Only)	Factory name Frequency LNA status BandWidth FFT Modulation Code Rate GI Hier Modulation Frequency Offset AGC UCB PLL Type DEMOD Type TPS Lock RS Lock
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