2-2. Detail Factory Option

※ If you replace the main board with new one, please change the factory option as well.
   The options you must change are "Type/Local Set/Model/Tuner/Front-Color".

• **LC530** (SX1 - S/W : T-TDT5DAAC-XXXX.X)

No.	Contents	Model Name / Adjustment Range	LA32C530F1R***	LA37C530F1R***	LA40C530F1R***	LA46C530F1R***
PANEL	Vendor		AMLCD	AUO	AUO	CMO
	Code		BN07-00808A	BN07-00828A	BN07-00830A	BN07-00822A
	SPEC		FHD,72%,31.5" With inverter	FHD,72%,37" With inverter	FHD,72%,40" W/O inverter	FHD,72%,46" W/O inverter
SMPS	Vendor		SEMCO	SEMCO	SEMCO	SEMCO
	Code		BN44-00339A	BN44-00339A	BN44-00340A	BN44-00341A
	SPEC					
	Contents	Adjustment Range	Middle.Asia / Africa	Middle.Asia / Africa	Middle.Asia / Africa	Middle.Asia / Africa
1	Factory Reset		…	…	…	…
2	Type	NONE/19O6TH0C/32A6AF0C/…	32A6AF0C	37L6AF0C	40L6AF0C	46D6AF0C
3	Local set	NONE/EA_Vietnam/EA_Thai/…	Depending On Area	Depending On Area	Depending On Area	Depending On Area
4	Model	LC350/LC450/LC530/LC550/ …	LC530	LC530	LC530	LC530
5	TUNER	DRXKSEMCO/S2Semco/T2CXD/…	DRXKSEMCO	DRXKSEMCO	DRXKSEMCO	DRXKSEMCO
6	DDR	0/1/2	0	0	0	0
7	Light Effect	ON/OFF	OFF	OFF	OFF	OFF
8	Ch Table	NONE/PBA/SUWON/…	Depending On Factory	Depending On Factory	Depending On Factory	Depending On Factory
9	Country	…	…	…	…	…
10	Front Color	None/W-Milky/T-M-Brn/T-W-Brn/…	S-R-BLK	S-R-BLK	S-R-BLK	S-R-BLK

• **LC530** (X4 - S/W : T-MSX51BRC-XXXX.X)

No.	Contents	Model Name / Adjustment Range	LA32C530F1R***	LA37C530F1R***	LA40C530F1R***	LA46C530F1R***	LA52C530F1R***
PANEL	Vendor		AMLCD	AUO	AUO	CMO	AMLCD
	Code		BN07-00808A	BN07-00828A	BN07-00830A	BN07-00822A	BN07-00814A
	SPEC		FHD,72%,31.5" With inverter	FHD,72%,37" With inverter	FHD,72%,40" W/O inverter	FHD,72%,46" W/O inverter	FHD,72%,46" W/O inverter
SMPS	Vendor		SEMCO	SEMCO	SEMCO	SEMCO	SEMCO
	Code		BN44-00339A	BN44-00339A	BN44-00340A	BN44-00341A	BN44-00343B
	SPEC					…	
	Contents	Adjustment Range	Middle.Asia / Africa	Middle.Asia / Africa	Middle.Asia / Africa	Middle.Asia / Africa	Middle.Asia / Africa
1	Factory Reset		…	…	…	…	…
2	Type	NONE/19O6TH0C/32A6AF0C/…	32A6AF0C	37L6AF0C	40L6AF0C	46D6AF0C	52A6AF0C
3	Local set	NONE/EA_Vietnam/EA_Thai/…	Depending On Area	Depending On Area	Depending On Area	Depending On Area	Depending On Area
4	Model	LC350/LC450/LC530/LC550/ …	LC530	LC530	LC530	LC530	LC530
5	TUNER	SEMPA081/DRXKSEMCO/ HTM6BXg_T/...	HTM6BXg_T	HTM6BXg_T	HTM6BXg_T	HTM6BXg_T	HTM6BXg_T
6	DDR	0/1/2	0	0	0	0	0
7	Light Effect	ON/OFF	OFF	OFF	OFF	OFF	OFF
8	Ch Table	NONE/PBA/SUWON/…	Depending On Factory	Depending On Factory	Depending On Factory	Depending On Factory	Depending On Factory
9	Country	…	…	…	…	…	…
10	Front Color	None/W-Milky/T-M-Brn/ T-W-Brn/…	S-R-BLK	S-R-BLK	S-R-BLK	S-R-BLK	S-R-BLK

4-2. Alignments and Adjustments

4-2-1. General Alignment Instuction

1. Usually, a color LCD-TV needs only slight touch-up adjustment upon installation.
   Check the basic characteristics such as height, horizontal and vertical sync.

2. Use the specified test equipment or its equivalent.

3. Correct impedance matching is essential.

4. Avoid overload. Excessive signal from a sweep generator might overload the front-end
   of the TV. When inserting signal markers, do not allow the marker generator to distort test result.

5. Connect the TV only to an AC power source with voltage and frequency as specified on
   the backcover nameplate.

6. Do not attempt to connect or disconnect any wire while the TV is turned on. Make sure
   that the power cord is disconnected before replacing any parts.

7. To protect against shock hazard, use an isolation transformer.

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
- If you do not have Factory remote - control

Info	→	Menu	→	Mute	→	Power ON

- If you have Factory remote - control

PICTURE ON	→	DISPLAY	→	FACTORY

- The buttons are active in the service mode.
1. Remote - Control Key : Power, Arrow Up, Arrow Down, Arrow Left, Arrow Right, Menu, Enter, Number Key(0~9)
2. Function - Control Key : Power, CH +, CH -, VOL +, VOL -, Menu, TV/VIDEO(Enter)

4-3-2 Panel Check

You have to check Panel Maker Because of different adjustments as follows.
First of all, Check the label rating!

1) Label Rating File
   - LCD PANEL MARK
     A:ACER(AUO) S : SEC C : CMO

* If not printed you could consider S(sec) panel mark.

4-3-3 Factory Data_(SX1)

■ Option

OPTION	Factory Name	Data	Range	Use
	Factory Reset			
	Type		NONE/19O6TH0C/19A6TH0C/22I6TH0C/22A6TH0C/22D6TH0C/22P6TH0C/26A6AH0C/26D6AH0C/26L6AH0C/26P6AH0C/32A6AH0C32D6AH0C/32L6AH0C32P6AH0C/32A6AF0C/32L6AF0C/32A1AF0C/32L1AF0C/37L6AF0C/37L1AF0C/40A6AF0C/40D6AF0C/40L6AF0C/40A1AF0C/40L1AF0C/40A1UF0C/40D1UF0C/40L1UF0C/46A6AF0C/46D6AF0C/46L6AF0C/46A1AF0C/46L1AF0C/46A1UF0C/46D1UF0C/46L1UF0C/55A1UF0C/55L1UF0C/65L1UF0C/19R6TH0E/22D6TH0E/26D6AH0E/32D6AH0E32D6UF0E/32A1UF0E/32D1UF0E/37L6UF0E/37D1UF0E/37L1UF0E/40D6UF0E/40A1UF0E/40D1UF0E/46D6UF0E/46L6UF0E/46A1UF0E/46D1UF0E/46L1UF0E/55A1UF0E/55D1UF0E/55L1UF0E/65L1UF0E/42HHcD3/50HHcD450FArN4/50FArV458FArN1/58FArV163FArN1/	Select Panel Type ❶❷ : inch ❸ : vendor ❹ : refresh ❺ : POL ❻ : resolution ❼ : multi ❽ : BLU
	Local Set	SA_ATV	NONE/EA_Vietnam/EA_Thai/EA_INA/EA_China/EA_India/EA_Iran/EA_Israel/EA_MidAsia/EA_EastAsia/EA_Africa/EA_Nepal/NONE / Brazil_DTV / SA_ATV / SA_ARG/PHI_ATV/	Select Area
	Model	LC530	LC350/LC450/LC450H/LC451/LC452/LC457HLC459H/LC480/LC530/LC530H/LC539H/LC540/LC550/LC560/LC580/LC570/LC610/LC620/LC630/LC631/LC632/LC633/LC640/LC650/LC652/LC653/LC654/LC670/UC400/UC400H/UC4010/UC5000/UC5100/UC6000/UC6200/UC6300/UC6400/UC6400H/UC6500/UC6510/UC6530/UC6540/UC6550/UC6600/UC6620/UC6630/UC6700/UC6720/UC6730/UC6740/UC6800/UC6830/UC6900/UC6900H/UC8000/PC420/PC430/PC431/PC432/PC450/PC451/PC480/PC520/PC530/PC531/PC540/PC541/PC550/PC551/PC560/PC580/PC590/PC670/PC6100/PC6400/PC6500/PC7000/PC7700/PC8000	Select Model
	TUNER	DRXKSEM_E	DRXKSEMCO/S2Semco/T2CXD/DRXKSEM_E/DRXKALPS/DRXKSEN_2/DRXKXG	EU : DRXKSEMCO AU : DRXKALPS satellite : S2Semco
	DDR	0	0/1	SAMSUNG
	Front Color		NONE/W-MILKY/T-M-Brn/T-W-Brn/T-W-Gray/W-D-Gray/W-M-Whit/W-Violet/T-C-Gray/T-R-BLK/S-BLK/S-RBLK/S-C-Gray/	Select Design for Illuminance Sensor

■ Control

Control	Factory Name	Data	Range
	EDID		
	Sub Option		
	Shop Option		
	Sound		

EDID	Factory Name	Data	Use
	EDID ON/OFF	OFF	
	EDID WRITE ALL	…	
	EDID WRITE PC	…	
	EDID WRITE HDMI	…	
	EDID WRITE HDMI1	…	**Download EDID data to EEPROM.** 1. Set "ON" of EDID ON/OFF. 2. Go EDID WRITE ALL and Push Enter or ▶ button. 3. If You See Success message, SET "OFF" of EDID ON/OFF.
	EDID WRITE HDMI2	…	
	EDID WRITE HDMI3	…	
	EDID WRITE HDMI4	…	
	EDID 1.2 PORT	…	
	EDID WRITE DVI	…	

Sub Option	Factory Name	Data	RANGE	Use
	RS-232 Jack	UART	Debug/Logic/UART	Select Setting of UART port. Initial value is "UART"
	Watchdog	ON	ON/OFF	Select Watchdog. Initial value is "ON"
	WD Count	0	255	Watchdog Count. Read Only.
	Dimm Type	EXT	fixed	Select Dimming Type. Initial value is "EXT"
	Lvds Format	JEIDA	JEIDA/VESA/19INCH	Select LVDS format. 19inch : VESA" other inch : "JEIDA"
	OTN Server Type	operating	operating/development	
	OTN Test Server	OFF	OFF/ A/B/C/D/E Zone	
	OTN Support	ON	ON/OFF	
	OTN Reset		not modifyed	
	OTN Duration	OFF	ON/OFF	
	OTN Fail Test	OFF	ON/OFF	
	T-CON USB Download	Failure	fixed	
	View Log		not modifyed	

Hotel Option	Factory Name	Data	Range
	Hotel Mode	OFF	
	SI Vender	…	
	Power On Channel	…	
	Channel Type	…	
	Power On Volume	…	
	Min Volume	…	
	Max Volume	…	
	Panel Button Lock	…	
	Power On Source	…	

Shop Option	Factory Name	Data	Range
	Shop Mode	OFF	ON/OFF
	Exhibition Mode	OFF	ON/OFF

Sound	Factory Name	Data	Range	Use
	High Devi	OFF	ON/OFF	
	Carrier_Mute	ON	ON/OFF	
	Speaker Delay Normal	10	0~255	Audio delay for Lipsync
	Pilot Level High Thld	0x70h	0x00~0xff	Control for ATV sound of stereo / multiplex
	Pilot Level Low Thld	0x20h	0x00~0xff	Control for ATV sound of stereo / multiplex
	Speaker EQ	ON	ON/OFF	Control for sound precision

■ SVC

SVC	Factory Name	Data	Range
	Test Pattern		
	Panel Auto Setting		
	Panel Display Time	0Hr	fixed
	Logic Usb D/L	off	
	Tuner Status		

Test Pattern	Factory Name	Data	Range	Use
	Pattern Sel	OFF	OFF/ White/Grey/Black Red/Green/Blue	Test for Input of Scaler. If you can see pattern well, there is problem at input of Scaler.
	FRC PC Mode	…	ON/OFF	
	Logic Pattern Sel	…	Not modified	
	Logic Level Sel	…	Not modified	

TUNER STATUS	Factory Name	Factory Name	Range
	DVB	SNR	Not modified
		BER	Not modified
		Singal Strength	Not modified
		Bandwidth	Not modified
		Frequency	Not modified
		LNA Status	Not modified
		FFT	Not modified
		Modulation	Not modified
		Code Rate	Not modified
		GI	Not modified
		Hier Modulation	Not modified
		Frequency Offset	Not modified
		Timing Offset	Not modified
		AGC	Not modified
		UCB	Not modified
		PLL Type	Not modified
		DEMOD Type	Not modified
		TPS LOCK	Not modified
		RS Lock	Not modified
		SSI	Not modified
		SQI	Not modified

	ISDB-T	FFT Size_1	Not modified
		Guard Interval_1	Not modified
		Freq. Offset_1	Not modified
		SNR_1	Not modified
		IF AGC_1	Not modified
		TMCC Lock_1	Not modified
		TS Packet_1	Not modified
		Master Lock_1	Not modified
		A_Modulation_1	Not modified
		A_Code Rate_1	Not modified
		A_Timer InterLeave_1	Not modified
		A_Segments Num_1	Not modified
		A_Ber_1	Not modified
		B_Modulation_!	Not modified
		B_Code Rate_1	Not modified
		B_Timer InterLeave_1	Not modified
		B_Segments Num_1	Not modified
		B_BER_1	Not modified
		C_Modulation_1	Not modified
		C_Code Rate_1	Not modified
		C_Timer InterLeave_1	Not modified
		C_Segments Num_1	Not modified
		C_BER_1	Not modified

■ Expert

SVC	Factory Name	Data	Range
	N / D ADJ	Off	Off / On / FIX
	SOURCE	...	Not modified

■ ADC/WB

ADC/WB	Factory Name	Data	Range
	ADC		
	ADC Target		
	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	235	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	Data	Range
	1st_AV_Gain	127	0 ~ 255
	1st_AV_Offset	139	0 ~ 255
	1st_Comp_Gain	68	0 ~ 255
	1st_Comp_Gain_Cb	68	0 ~ 255
	1st_Comp_Gain_Cr	68	0 ~ 255
	1st_Comp_Offset	127	0 ~ 255
	1st_Comp_Offset_Cb	127	0 ~ 255
	1st_Comp_Offset_Cr	127	0 ~ 255
	1st_PC_R_Gain	96	0 ~ 255
	1st_PC_G_Gain	95	0 ~ 255
	1st_PC_B_Gain	94	0 ~ 255
	1st_PC_R_Offset	127	0 ~ 255
	1st_PC_G_Offset	127	0 ~ 255

Factory Name	Data	Range
1st_PC_B_Offset	127	0 ~ 255
2nd_R_Offset	110	0 ~ 255
2nd_G_Offset	110	0 ~ 255
2nd_B_Offset	110	0 ~ 255
2nd_R_Gain	165	0 ~ 255
2nd_G_Gain	165	0 ~ 255
2nd_B_Gain	165	0 ~ 255

WB	Factory Name	Data	Range
	Sub Brightness	128	0 ~ 255
	R_Offset	128	0 ~ 255
	G_Offset	128	0 ~ 255
	B_Offset	128	0 ~ 255
	Sub Contrast	128	0 ~ 255
	R_Gain	128	0 ~ 255
	G_Gain	128	0 ~ 255
	B_Gain	128	0 ~ 255
	Movie R Offset	122	0 ~ 255
	Movie B Offset	145	0 ~ 255
	Movie R Gain	156	0 ~ 255
	Movie B Gain	39	0 ~ 255

4-3-4. Factory Data_(X4)

■ Option

OPTION	Factory Name	Data	Range	Remark
	Factory Reset			
	Type	26D6AH0C 32D6AH0C 32L6AF0C 37L6AF0C 40D6AF0C 46L6AF0C	NONE/19O6TH0C/19A6TH0C/22I6TH0C/22A6TH0C/22D6TH0C/22P6TH0C/26A6AH0C/26D6AH0C/26L6AH0C/26P6AH0C/32A6AH0C/32D6AH0C/32L6AH0C/32P6AH0C/32A6AF0C/32L6AF0C/32A1AF0C/32L1AF0C/37L6AF0C/37L1AF0C/40A6AF0C/40D6AF0C/40L6AF0C/40A1AF0C/40L1AF0C/40A1UF0C/40D1UF0C/40L1UF0C/46A6AF0C/46D6AF0C/46L6AF0C/46A1AF0C/46L1AF0C/46A1UF0C/46D1UF0C/46L1UF0C/55A1UF0C/55L1UF0C/65L1UF0C/19O6TH0E/22D6TH0E/26D6AH0E/32D6AH0E/32D6UF0E/32A1UF0E/32D1UF0E/37L6UF0E/37D1UF0E/37L1UF0E/40D6UF0E/40A1UF0E/40D1UF0E/46D6UF0E/46L6UF0E/46A1UF0E/46D1UF0E/46L1UF0E/55A1UF0E/55D1UF0E/55L1UF0E/65L1UF0E/42HHcD3/50HHcD450FArN4/50FArV458FArN1/58FArV163FArN1/	
	Local Set	…		
	Model	LC550	LC350/LC450/LC450H/LC451LC452/LC457HLC459H/LC480/LC530/LC530H/LC539H/LC540/LC550/LC560/LC580/LC570/LC610/LC620/LC630/LC631/LC632/LC633/LC640/LC650/LC652/LC653/LC654/LC670/UC4000/UC4000H/UC4010/UC5000/UC5100/UC6000/UC6200/UC6300/UC6400/UC6400H/UC6500/UC6510/UC6530/UC6540/UC6550/UC6600/UC6620/UC6630/UC6700/UC6720/UC6730/UC6740/UC6800/UC6830/UC6900/UC6900H/UC8000/PC420/PC430/PC431/PC432/PC450/PC451/PC480/PC520/PC530/PC531/PC540/PC541/PC550/PC551/PC560/PC580/PC590/PC670/PC6100/PC6400/PC6500/PC7000/PC7700/PC8000	
	TUNER	HTM6BXg_T	SEMPA081/DRXKSEMCO/HTM6BXg_T/T2_CXDSEM/….	
	DDR	0	0~2	
	Light Effect	OFF	ON/OFF	INFO+FACTORY
	Ch Table	…	NONE/PBA/SUWON/SEDA	
	Country	…	…	
	Front Color	T-R-BLK S-R-BLK	NONE/W-MILKY/T-M-Brn/T-W-Brn/T-W-Gray/W-D-Gray/W-M-Whit/W-Violet/T-C-Gray/T-R-BLK/S-BLK/S-R-BLK/S-C-Gray/	

■ Control

Control	Factory Name	Range	Remark
	EDID	SUB MENU	
	Sub Option	SUB MENU	
	PDP Option		
	Hotel Option	SUB MENU	
	Shop Option	SUB MENU	
	Asia Option	SUB MENU	INFO+FACTORY
	Sound	SUB MENU	
	Config Option	SUB MENU	INFO+FACTORY
	SCC	SUB MENU	INFO+FACTORY

EDID	Factory Name	Data	Range	Remark
	EDID ON/OFF	Off	ON/OFF	
	EDID WRITE ALL	Success	Success/failure	
	EDID WRITE PC	Success	Success/failure	
	EDID WRITE HDMI	…	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 1.2 PORT	NONE	NONE/Not Support/HDMI2/HDMI3/HDMI4	
	EDID WRITE DVI	…	fixed	

Sub Option	Factory Name	Data	Range	Remark
	RF Mute Time	600ms	0ms~1000ms	
	RS-232 Jack	UART	Debug/Login/UART	
	Watchdog	OFF	ON/OFF	
	WD Count	0	0~255	
	Dimm Type	EXT	fixed	
	Lvds Format	JEIDA	JEIDA/VESA/19INCH	
	Language_Arbic	…	fixed	INFO+FACTORY
	TOOLS Support	32	0~255	INFO+FACTORY
	LNA Support	0	0~255	INFO+FACTORY
	MediaPlay DB	On whth 5MB	fixed	
	MediaPlay Movie	chapterinMedia	fixed	
	MediaPlay DLNA	OFF	fixed	
	MediaPlay PlayList	OFF	fixed	
	NETWORK Support	Wireless	Not Support/Cable/Wireless	INFO+FACTORY
	Info Link Server Type	operationg	operationgdevelopment/developing	INFO+FACTORY
	Info Link Country	USA	None/USA	INFO+FACTORY
	TTX List	…	fixed	INFO+FACTORY
	TTX Group	…	fixed	INFO+FACTORY
	24Px4 Support	OFF	ON/OFF	INFO+FACTORY
	Power Indicator Support	OFF	ON/OFF	INFO+FACTORY
	BD Wise Support	ON	ON/OFF	INFO+FACTORY
	Data Service Support	OFF	ON/OFF	INFO+FACTORY

Alternate Del	OFF	ON/OFF	INFO+FACTORY
OTN Server Type	operationg	operation/development	
OTN Test Server	OFF	OFF/ A/B/C/D/E Zone	
OTN Support	OFF	ON/OFF	
OTN Reset			
OTN Duration	OFF	ON/OFF	
OTN Fail Test	OFF	ON/OFF	
IIC Bus Stop	OFF	ON/OFF	INFO+FACTORY
Visual Test	Disable	fixed	INFO+FACTORY
T-CON USB Download	Failure	fixed	
Emergency Log Copy			INFO+FACTORY
Checksum	0x0000		INFO+FACTORY
View Log		SUB MENU	

Factory Name	Data	Range	Remark
Select Log Type	IR Key	NVRAM / DIAGNOSIS / IR KEY	
Log View			
Delete Log			

ColorSpace Support	HueSate Type	RGB Type / HueSate Type	INFO+FACTORY
Gemstar On/Off	OFF	ON/OFF	INFO+FACTORY
WSS Support	OFF	ON/OFF	INFO+FACTORY
PVR Support	OFF	ON/OFF	INFO+FACTORY
CI Support	OFF	ON/OFF	INFO+FACTORY
Eeprom Reset		SUB MENU	INFO+FACTORY

Factory Name	Data	Range	Remark
Select Log Type	IR Key	NVRAM / DIAGNOSIS / IR KEY	
Log View			
Delete Log			

Spread Spectrum		SUB MENU	INFO+FACTORY

Factory Name	Data	Range	Remark
LVDS Spread	ON	ON/OFF	INFO+FACTORY
Period	40K	30K/40K/50K/60K	INFO+FACTORY
Amplitude	1.5	0.0/0.5/1.0/1.5/2.0/2.5/3.0	INFO+FACTORY
DDR Spread	1.00%	0.1~2.0%	INFO+FACTORY

DDR Margin		SUB MENU	INFO+FACTORY

Factory Name	Data	Range	Remark
A CTRL_OFFSET_0_3	0X0	fixed	INFO+FACTORY
A CTRL_OFFSET_D	0X0	fixed	INFO+FACTORY
B CTRL_OFFSET_0_3	0X0	fixed	INFO+FACTORY
B CTRL_OFFSET_D	0X0	fixed	INFO+FACTORY
H.264 Margin	200	0~2000	
MPEG Margin	50	0~2001	

Factory Name	Data	Range	Remark
Tuner Margin	50	0~2002	
SST		SUB MENU	

Factory Name	Data	Range	Remark
Y0 Ref	166	0~255	
Y1 Ref	148	0~255	
Y2 Ref	119	0~255	
Y3 Ref	101	0~255	
Y4 Ref	76	0~255	
Y5 Ref	60	0~255	
Y6 Ref	31	0~255	
Y7 Ref	0	0~255	
Cb0 Ref	128	0~255	
Cb1 Ref	64	0~255	
Cb2 Ref	148	0~255	
Cb3 Ref	85	0~255	
Cb4 Ref	171	0~255	
Cb5 Ref	108	0~255	
Cb6 Ref	194	0~255	
Cb7 Ref	0	0~255	
Cr0 Ref	128	0~255	
Cr1 Ref	137	0~255	
Cr2 Ref	64	0~255	
Cr3 Ref	74	0~255	
Cr4 Ref	181	0~255	
Cr5 Ref	192	0~255	
Cr6 Ref	118	0~255	
Cr7 Ref	0	0~255	
SST_Th		SUB MENU	

Factory Name	Data	Range	Remark
Y0 TH	20	0~255	
Y1 TH	20	0~255	
Y2 TH	20	0~255	
Y3 TH	20	0~255	
Y4 TH	20	0~255	
Y5 TH	20	0~255	
Y6 TH	20	0~255	
Y7 TH	20	0~255	
Cb0 TH	20	0~255	
Cb1 TH	20	0~255	
Cb2 TH	20	0~255	
Cb3 TH	20	0~255	
Cb4 TH	20	0~255	
Cb5 TH	20	0~255	
Cb6 TH	20	0~255	
Cb7 TH	20	0~255	

Cr0 TH	20	0~255	
Cr1 TH	20	0~255	
Cr2 TH	20	0~255	
Cr3 TH	20	0~255	
Cr4 TH	20	0~255	
Cr5 TH	20	0~255	
Cr6 TH	20	0~255	
Cr7 TH	20	0~255	

2nd mips	ON	ON/OFF	
2nd mips count	0	0~255	
Region	KOR	fixed	
PnP Language	…	fixed	INFO+FACTORY
PC Auto Ident	Enable	Auto/Enable	

Hotel Option	Factory Name	Data	Range	Remark
	Hotel Mode	OFF	ON/OFF	
	SI Vender	Samsung	Samsung/2M/Locatel/VDA/VDA-S/Acentic/ Premiere/Sustinere/Quadriga/ETV/Ibahn/ Magilink/Otrum/PeninsulaSiemens/OCC/MTI/ MstreamsDAWNXTV/Enseo/Cardinal/Guestek/OFF/ Movielink/Swisscom	
	Power On Channel	3	1~135	
	Channel Type	ATV	ATV/DTV/CATV/CDTV	
	Power On Volume	10	0~100	
	Min Volume	0	0~100	
	Max Volume	100	0~100	
	Panel Button Lock	Unlock	Unlock/Lock/OnlyPower	
	Power On Source	TV	TV/AV/Comp/PC/HDMI1/HDMI2/HDMI3/HDMI4	

Shop Option	Factory Name	Data	Range	Remark
	Shop Mode	OFF	ON/OFF	
	Exhibition Mode	OFF	ON/OFF	

Asia Option	Factory Name	Data	Range	Remark
	TTX	OFF	ON/OFF	INFO+FACTORY
	China HD	OFF	ON/OFF	INFO+FACTORY
	NT Conversion	OFF	ON/OFF	INFO+FACTORY
	Sepco 120Hz	OFF	ON/OFF	INFO+FACTORY
	Unbalance	OFF	ON/OFF	INFO+FACTORY
	FMTransmitter Support	OFF	ON/OFF	INFO+FACTORY
	FMTransmitter Carrier	OFF	ON/OFF	INFO+FACTORY
	AF Level adjust	3	0~7	INFO+FACTORY
	TX Power Level	0	0~3	INFO+FACTORY
	Mono Last Memory	OFF	ON/OFF	INFO+FACTORY

Sound	Factory Name	Data	Range	Remark
	High Devi	OFF	ON/OFF	
	Carrier_Mute	ON	ON/OFF	
	Volume Curve	Type2	Type1/Type2/error	INFO+FACTORY
	Speaker Delay Normal	10	0~255	
	Pilot Level High Thld	0x08h	0x00~0xff	
	Pilot Level Low Thld	0x05h	0x00~0xff	
	FM Prescale	17	0~255	INFO+FACTORY
	AM Prescale	10	0~255	INFO+FACTORY
	NICAM Prescale	33	0~255	INFO+FACTORY
	Amp Volume	0x10h	0x00~0xff	INFO+FACTORY
	Amp Scale	0x78h	0x00~0xff	INFO+FACTORY
	Amp Check Sum	0x0000a820	fixed	INFO+FACTORY
	Woofer Type	4	1~7	INFO+FACTORY
	Woofer Scale	0x7Fh	0x00~0xff	INFO+FACTORY
	Woofer Check Sum			INFO+FACTORY
	Speaker EQ	ON	ON/OFF	
	PEQ Test	0	0~7	INFO+FACTORY
	Amp Model	NTP7300	SAT369B/TAS5715/NPT7300	INFO+FACTORY
	Speaker cut-off Freq	4	0~16	INFO+FACTORY
	SPDIF PCM Gain	-9dB	-10dB~0dB	INFO+FACTORY
	BTSC Mono Prescale	0	-10~10	INFO+FACTORY
	BTSC streo Prescale	0	-10~10	INFO+FACTORY
	SAO Prescale	0	-10~10	INFO+FACTORY
	A2 Ident High Thld	0	-10~10	INFO+FACTORY
	A2 Ident Low Thld	0	-10~10	INFO+FACTORY
	Carrier2 Amp High Thld	0	-10~10	INFO+FACTORY
	Carrier2 Amp Low Thld	0	-10~10	INFO+FACTORY
	Carrier2 SNR High THR	0	-10~10	INFO+FACTORY
	Carrier2 SNR Low THR	0	-10~10	INFO+FACTORY

Config Option	Factory Name	Data	Range	Remark
	Num of ATV	1	1~2	INFO+FACTORY
	Num of DTV	1	0~2	INFO+FACTORY
	Num of AV	2	0~3	INFO+FACTORY
	Num of SVIDEO	0	1~3	INFO+FACTORY
	Num of Comp	2	1~3	INFO+FACTORY
	Num of HDMI	4	0~4	INFO+FACTORY
	Num of PC	1	0~1	INFO+FACTORY
	Num of SCART	0	0~2	INFO+FACTORY
	Num of DVI	0	0~1	INFO+FACTORY
	Num of OPTICAL Link	0	fixed	INFO+FACTORY
	Num of MEDIA	1	0~1	INFO+FACTORY
	Num of PANEL KEY	6	0~8	INFO+FACTORY
	Num of USB Port	2	0~2	INFO+FACTORY
	Num of HeadPhone	0	0~1	INFO+FACTORY
	MFT Offset	62.5	50/62.5	INFO+FACTORY

Select LCD/PDP	LCD	LCD/PDP	INFO+FACTORY
HDMI/DVI SEL	1	1~4	INFO+FACTORY
Indicator Led	OFF	ON/OFF	INFO+FACTORY
Wall Mount	OFF	ON/OFF	INFO+FACTORY
HV Flip	ON	ON/OFF	INFO+FACTORY
Num of Display	2	1~2	INFO+FACTORY
DVI/HDMI SOUND	Auto	Auto/DVI	INFO+FACTORY
HDMI HOT PLUG	Disable	Enable/Disable	INFO+FACTORY
HOTPLUG SWITCHING	Boot	Disable/Boot/Source	INFO+FACTORY
HOTPLUG DURATION	1200ms	0~2000ms	INFO+FACTORY
CLK TERM DURATION	1200ms	0~2000ms	INFO+FACTORY
HDMI FLT CNT SIG	200ms	0~1000ms	INFO+FACTORY
HDMI FLT CNT LOS	600ms	0~1000ms	INFO+FACTORY
UNSTABLE BAN CNT	3500ms	0~100000ms	INFO+FACTORY
HDMI Err Cnt	5	0~10	INFO+FACTORY
HDMI ROBIN	ON	ON/OFF	INFO+FACTORY
HDMI Callback	OFF	ON/OFF	INFO+FACTORY
HDMI CTS Thld	8	0~15	INFO+FACTORY
HDMI CTS Cnt1	1	0~15	INFO+FACTORY
TMDS_EQ2_Boost	1	0~7	INFO+FACTORY
TMDS_EQ2_Gain	0	0~3	INFO+FACTORY
TMDS_PLL_Loop	3	0~3	INFO+FACTORY
TMDS_CPREG_BLEED	1	0~1	INFO+FACTORY
HDMI EQ	AUTO	AUTO/Low/Middle/High/Strong	INFO+FACTORY
HDMI Write Type	Combine	Combine/Separate	INFO+FACTORY
HDMI Switch	SIL9287	NONE/SIL9287/TMDS461	INFO+FACTORY
DVI SET TIME	300ms	0~1000ms	INFO+FACTORY
Type Of PANEL KEY	Horizontal	Horzontal/Vertical/PDPVertical/Nne	INFO+FACTORY
EcoSensor Support	ON	ON/OFF	INFO+FACTORY
LEDMotionPlus Support	OFF	ON/OFF	INFO+FACTORY
Natural Mode Support	ON	ON/OFF	INFO+FACTORY
All Share Support	ON	ON/OFF	INFO+FACTORY
Relax Mode Support	OFF	ON/OFF	INFO+FACTORY
DVI-I Support	…	fixed	INFO+FACTORY
Melfas Function Support	…	fixed	INFO+FACTORY
Light Level Support	…	fixed	INFO+FACTORY

SCC	Factory Name	Data	Range	Remark
	SCC Mode	Dynamic	Dynamic/Movie	INFO+FACTORY
	SCC ON/OFF	OFF	ON/OFF	INFO+FACTORY
	SCC Input Data		SUB MENU	INFO+FACTORY

Factory Name	Data	Range	Remark
Hx	272	0~512	INFO+FACTORY
Hy	273	0~512	INFO+FACTORY
Lx	274	0~512	INFO+FACTORY
Ly	275	0~512	INFO+FACTORY

sSCC Const		SUB MENU	INFO+FACTORY

Factory Name	Data	Range	Remark
sSCC Hx	550	0~1024	INFO+FACTORY
sSCC Hy	566	0~1024	INFO+FACTORY
sSCC Lx	598	0~1024	INFO+FACTORY
sSCC Ly	550	0~1024	INFO+FACTORY

pSCC Const		SUB MENU	INFO+FACTORY

Factory Name	Data	Range	Remark
Hx	272	0~512	INFO+FACTORY
Hy	273	0~512	INFO+FACTORY
Lx	274	0~512	INFO+FACTORY
Ly	275	0~512	INFO+FACTORY

SCC Source Data	PBA	PBA/PANEL	INFO+FACTORY
SWAP	PBA	PBA/PANEL	INFO+FACTORY

SCC Source Data	PBA	PBA/PANEL	INFO+FACTORY
SWAP	PBA	PBA/PANEL	INFO+FACTORY

■ SVC

Shop Option	Factory Name	Data	Range	Remark
	Test Pattern		SUB MENU	

Factory Name	Data	Range	Remark
Pattern Sel	OFF	OFF/ White/Grey/Black/Red/Green/Blue	
Logic Pattern Sel	…	fixed	
Logic Level Sel	…	fixed	

Panel Auto Setting	Success		INFO+FACTORY
Panel Display Time	8Hr	fixed	
Logic Usb D/L	Off	fixed	INFO+FACTORY
Tuner Status			

TUNER STATUS	Factory Name	Data	Range	Remark
	DVB		SUB MENU	

Factory Name	Data	Range	Remark
SNR		fixed	
BER		fixed	
Singal Strength		fixed	
Bandwidth		fixed	
Frequency		fixed	
LNA Status		fixed	
FFT		fixed	
Modulation		fixed	

Code Rate		fixed	
GI		fixed	
Hier Modulation		fixed	
Frequency Offset		fixed	
Timing Offset		fixed	
AGC		fixed	
UCB		fixed	
PLL Type		fixed	
DEMOD Type		fixed	
TPS LOCK		fixed	
RS Lock		fixed	
SSI		fixed	
SQI		fixed	

ISDB-T		SUB MENU	
Factory Name	**Data**	**Range**	**Remark**
FFT Size_1		fixed	
Guard Interval_1		fixed	
Freq. Offset_1		fixed	
SNR_1		fixed	
IF AGC_1		fixed	
TMCC Lock_1		fixed	
TS Packet_1		fixed	
Master Lock_1		fixed	
A_Modulation_1		fixed	
A_Code Rate_1		fixed	
A_Timer InterLeave_1		fixed	
A_Segments Num_1		fixed	
A_Ber_1		fixed	
B_Modulation_!		fixed	
B_Code Rate_1		fixed	
B_Timer InterLeave_1		fixed	
B_Segments Num_1		fixed	
B_BER_1		fixed	
C_Modulation_1		fixed	
C_Code Rate_1		fixed	
C_Timer InterLeave_1		fixed	
C_Segments Num_1		fixed	
C_BER_1		fixed	

■ Expert

ADC/WB	Factory Name	Data	Range	Remark
	ADC		SUB MENU	

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

Factory Name	Data	Range	Remark
ADC Target		SUB MENU	

	Factory Name	Data	Range	Remark
	1st_AV_Low	64	0 ~ 1020	
	1st_AV_High	880	0 ~ 1020	
	1st_AV_Delta	2	0 ~ 7	
	1st_COMP_Y_Low	64	0 ~ 1020	
	1st_COMP_Cb_Low	…		
	1st_COMP_Cr_Low	…		
	1st_COMP_Y_High	940	0 ~ 1020	
	1st_COMP_Cb_High	…		
	1st_COMP_Cr_High	…		
	1st_COMP_Delta	2	0~7	
	1st_PC_R_Low	16	0 ~ 1020	
	1st_PC_G_Low	…		
	1st_PC_B_Low	…		
	1st_PC_R_High	1004	0 ~ 1020	
	1st_PC_G_Low	…		
	1st_PC_B_Low	…		
	1st_PC_Delta	2	0~7	
	2nd_AV_R_Low	4	fixed	
	2nd_AV_G_Low	4	fixed	
	2nd_AV_B_Low	4	fixed	
	2nd_AV_R_High	940	fixed	
	2nd_AV_G_High	940	fixed	
	2nd_AV_B_High	940	fixed	
	2nd_AV_Delta	2	0~7	
	2nd_COMP_R_Low	4	fixed	
	2nd_COMP_G_Low	4	fixed	
	2nd_COMP_B_Low	4	fixed	
	2nd_COMP_R_High	940	fixed	
	2nd_COMP_G_High	940	fixed	
	2nd_COMP_B_High	940	fixed	
	2nd_COMP_Delta	2	0~7	
	2nd_PC_R_Low	4	fixed	
	2nd_PC_G_Low	4	fixed	
	2nd_PC_B_Low	4	fixed	
	2nd_PC_R_High	940	fixed	

2nd_PC_G_High	940	fixed	
2nd_PC_B_High	940	fixed	
2nd_PC_Delta	2	0~7	
2nd_HDMI_R_Low	4	fixed	
2nd_HDMI_G_Low	4	fixed	
2nd_HDMI_B_Low	4	fixed	
2nd_HDMI_R_High	940	fixed	
2nd_HDMI_G_High	940	fixed	
2nd_HDMI_B_High	940	fixed	
2nd_HDMI_Delta	2	0~7	

ADC RESULT		SUB MENU	

Factory Name	Data	Range	Remark
1st_Y_GH	0	fixed	
1st_Y_GL	0	fixed	
1st_Cb_BH	0	fixed	
1st_Cb_BL	0	fixed	
1st_Cr_RH	0	fixed	
1st_Cr_RL	0	fixed	
2nd_R_L	134	0 ~ 255	
2nd_G_L	134	0 ~ 255	
2nd_B_L	134	0 ~ 255	
2nd_R_H	49	0 ~ 255	
2nd_G_H	49	0 ~ 255	
2nd_B_H	49	0 ~ 255	

WB		SUB MENU	

Factory Name	Data	Range	Remark
Sub Brightness	128	0 ~ 1023	
R_Offset	512	0 ~ 1023	
G_Offset	512	0 ~ 1023	
B_Offset	512	0 ~ 1023	
Sub Contrast	128	0 ~ 1023	
R_Gain	512	0 ~ 1023	
G_Gain	512	0 ~ 1023	
B_Gain	512	0 ~ 1023	
Movie R Offset	…	fixed	
Movie B Offset	…	fixed	
Movie R Gain	…	fixed	
Movie B Gain	…	fixed	

4-4. White Balance - Calibration

4-4-1 White Balance -Calibration

1. Calibration

→

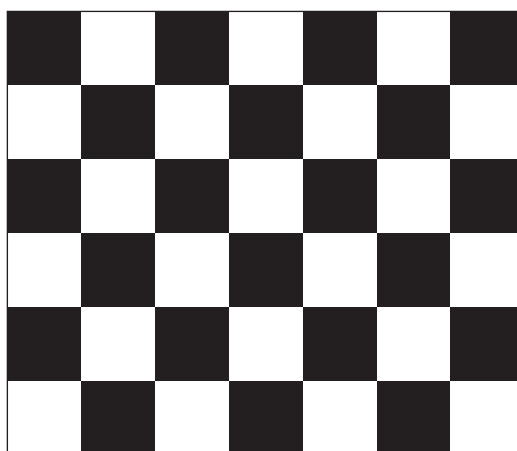| AV Calibration |
| Comp Calibration |
| PC Calibration |
| HDMI Calibration |
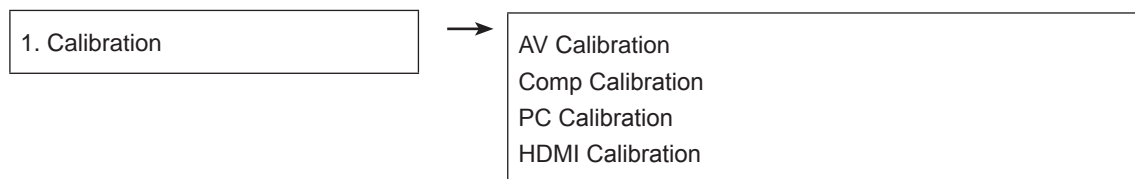
4-4-2 Service Adjustment - You must perform Calibration in the Lattice Pattern before adjusting the White Balance.

■ Color Calibration

Adjust spec.
1. Source   : HDMI
2. Setting Mode : 1280*720@60Hz
3. Pattern   : Pattern #24 (Chess Pattern)

(Chess Pattern)

4. Use Equipment : CA210 & Master MSPG925 Generator

- Use other equipment only after comparing the result with that of the Master equipment.

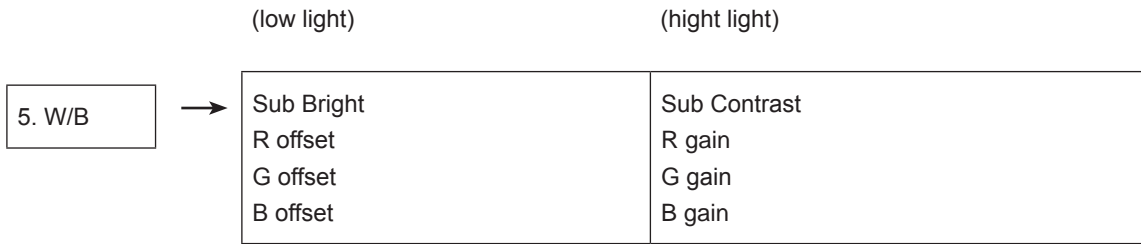| Input mode	Calibration	Pattern
CVBS IN (Model_#1)	Perform in NTSC B&W Pattern #24	Lattice
Component IN (Model_#6)	Perform in 720p B&W Pattern #24	Lattice
PC Analog IN (Model_#21)	Perform in VESA XGA (1024x768) B&W Pattern #24	Lattice
HDMI IN	Perform in 720p B&W Pattern #24	Lattice

<Table 1>

■ Method of Color Calibration (AV)

1) Apply the NTSC Lattice (N0. 3) pattern signal to the AV IN 1 port
2) Press the Source key to switch to "AV1" mode
3) Enter Service mode
4) Select the "Calibration" menu
5) Select the "AV Calibration" menu.
6) In "AV Calibration Off" status, press the "▶" key to perform Calibration.
7) When Calibration is complete, it returns to the high-level menu.
8) You can see the change of the "AV Calibration" status from Failure to Success.

■ Method of Color Calibration (Component)

1) Apply the 720p Lattice (N0. 6) pattern signal to the Component IN 1 port
2) Press the Source key to switch to "Component1" mode
3) Enter Service mode
4) Select the "Calibration" menu
5) Select the "Comp Calibration" menu.
6) In "Comp Calibration Off" status, press the "▶" key to perform Calibration.
7) When Calibration is complete, it returns to the high-level menu.
8) You can see the change of the "Comp Calibration" status from Failure to Success.

■ Method of Color Calibration (PC)

1) Apply the VESA XGA Lattice (N0. 21) pattern signal to the PC IN port
2) Press the Source key to switch to "PC" mode
3) Enter Service mode
4) Select the "Calibration" menu
5) Select the "PC Calibration" menu.
6) In "PC Calibration Off" status, press the "▶" key to perform Calibration.
7) When Calibration is complete, it returns to the high-level menu.
8) You can see the change of the "PC Calibration" status from Failure to Success.

■ Method of Color Calibration (HDMI)

1) Apply the 720p Lattice (N0. 6) pattern signal to the HDMI1/DVI IN port
2) Press the Source key to switch to "HDMI1" mode
3) Enter Service mode
4) Select the "Calibration" menu
5) Select the "HDMI Calibration" menu.
6) In "HDMI Calibration Off" status, press the "▶" key to perform Calibration.
7) When Calibration is complete, it returns to the high-level menu.
8) You can see the change of the "HDMI Calibration" status from Failure to Success.

(low light)   (hight light)

5. W/B →	Sub Bright	Sub Contrast
	R offset	R gain
	G offset	G gain
	B offset	B gain

(W/B adjustment Condition refer next page)

4-5. Servicing Information

4-5-1 USB Download Method

Samsung may offer upgrades for TV's firmware in the future.
Upgrades will be possible by connecting a USB drive to the USB port located on your TV.

1. Insert a USB drive containing the firmware upgrade into the MEDIA PLAY port on the side of the TV.

2. Press the **MENU** button to display the menu.
   Press the ▲ or ▼ button to select **Support**, then press the **ENTER** button.

3. Press the ▲ or ▼ button to select **SW Upgrade**, then press the **ENTER** button.
   The message **Scanning for USB. It may take up to 30 seconds.** is displayed.

4. The message **Upgrade version XXXX to version XXXX? The system will be reset affer upgrade**. is displayed.
   Press the ◀ or ▶ to select the **OK**, then press the **ENTER** button.

Please be careful to not disconnect the power or remove the USB drive while upgrades are being applied. The TV will turn off and turn on automatically after completing the firmware upgrade. Please check the firmware version after the upgrades are complete. When software is upgraded, video and audio settings you have made will return to their default (factory) settings. We recommend you write down your settings so that you can easily reset them after the upgrade.