ADJUSTMENT

■ Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances. But this is changeable in view of productivity.
5. Unless otherwise noted, set the line voltage to 230Vac±10%, 50Hz.

■ Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

• RF AGC (Automatic Gain Control) Adjustment

Test Point	**: AGC TP (J17)**
Adjust	**: Remote Control**

The RF AGC was aligned at the time of manufacture for optimum performance over a wide range conditions. Readjustment of RF AGC should not be necessary unless unusual local conditions exist, such as ;

1) Channel interference in a CATV system.
2) Picture bending and/or color beats, which are unusually due to excessive RF signal input when the receiver is too close to a transmitting tower or when the receiver is connected to an antenna distribution system where the RF signal has been amplified. In this case, the input signal should be attenuated (with pad or filter) to a satisfactory level.
3) Picture noise caused by "broadcast noise" or weak signal. If the broadcast is "clean" and the RF signal is at least 1mV (60dBu), the picture will be noise free in any area.

Adjusting RF AGC to one end of rotation will usually cause a relatively poor signal to noise ratio;
Adjusting to the other end of rotation will usually cause a degradation of over load capabilities resulting in color beats or adjacent channel interference.

Adjustment

1. Connect RF signal (65dB±0.5dB) and turn on the TV.
2. Press OK buttons on TV set and Remote Controller at the same time to get into SVC mode.
3. Press Channel UP/DOWN button on the Remote Controller several times to find AGC.
4. Press Volume UP/DOWN button until the AGC Voltage is the same as the Table below.
5. Press OK(■) button to memorize the data.

TUNER	6700VPV002A(LG C&D)	6700VPV002B(LG C&D)
AGC Voltage	2.5 ± 0.1V	3.0 ± 0.1V
Default AGC Data	24	24

• Screen Voltage Adjustment

Test Point	**: RK (Red Cathode of CPT Board)**
Adjust	**: Screen Control of FBT**

1) Input the Color Bar Pattern into Antenna jack.
2) Select CutOff of SVC-3 mode.
3) Turn the screen control clockwise until the Horizontal line is visible and turn it counterclockwise until the Horizontal line is faintly visible.

• Focus Adjustment

NOTE: This adjustment should be performed after warming up for 10 minutes.

Test Point	**: Observing Display**
Adjust	**: Focus control of FBT**

1) Input the Color Bar Pattern into Antenna jack.
2) Adjust the Focus control of FBT for best overall focus.

• VCO Adjustment

1) Input Digital Pattern into Antenna jack.
2) Select A-PIF of SVC-4 mode.
3) Press VOL◀/▶ button and A-PIF will be changed 0 to 1 while the number of PIF-C is rolling.
4) When PIF-C stops rolling, A-PIF will be changed 1 to 0 and VCO adjustment is finished.

Caution : Do not press the Volume button again in A-PIF mode after adjustment is finished.

1. To get into SVC mode
1) Press OK buttons on both TV set and Remote Control at the same time.
2) Press Yellow button to select OPTION-1, OPTION-2, OPTION-3 or OPTION-4.
3) Press PR ▼/▲ button to select an adjustment.
4) Press VOL ◀/▶ button to change the data.

2. To memorize the adjusted data into EEPROM
Press OK button.

3. To get out from SVC mode
Press TV/AV or Power button.

• Deflection Data Adjustment (Line SVC-2)

1. Preparation for Adjustment

1) Select SVC-2 Mode.
2) Tune the TV set to receive Digital Pattern and set ARC Mode to Standard.

2. Initial deflection data and average data for CPT

Status	Default	21" LG	20" LG	14" LG
VL	9	9	9	9
VS	3	3	1	3
VA	37	34	39	37
HS	11	12	10	11
SC	2	2	2	2

3. Adjustment

1) VL(Vertical Linearity) Adjustment
Select VL adjustment mode to adjust the upper and lower vertical size to be the same for horizontal center line.

2) VS(Vertical Shift) Adjustment
Adjust the geometrical horizontal center line of the screen to be coincided with the vertical center line of CPT.

3) VA(Vertical Amplitude) Adjustment
Adjust the upper and lower part of big circle of the received pattern to be placed on 6~7mm from the valid screen.

4) HS(Horizontal Shift) Adjustment
Adjust the geometrical vertical center line of the received screen to be coincided with the horizontal center line of CPT.

5) SC(Vertical S Correction) Adjustment
Adjust the width of upper/center/lower grid of the received pattern to be the same.

• SECAM Background Color Adjustment(CT-, CF-)

1. Preparation for Adjustment

Select “S R-Y” or “S B-Y” of SVC Mode 4.

2. Adjustment

While switching SECAM and PAL channels in turns, press VOL ◀/▶ key until the background color of SECAM channel to be the same as that of PAL Pattern at S R-Y or S B-Y.

• White Balance Adjustment.(LINE SVC-1)

NOTE : This adjustment should be performed after screen voltage adjustment.

1) Tune the TV set to receive 100% white pattern.
2) Select SVC-1 Mode.
3) Press PR UP/DOWN key to select BG, GG, BG, GC.
   Adjust BG, GG on Brightness 40±1FL and BG, GC on Brightness 4.5±0.5FL with VOL◀/▶ key to get the color value.
4) Adjust BG, GG from the initialized data to get the color value of X=281±8, Y=288±8.
5) R,G,B initial data and average data

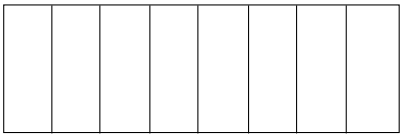
Status	Initial Data	Remark
RC	127	
GC	147	
BC	123	
GG	59	
BG	64	

• Sub Brightness Adjustment

NOTE: This adjustment should be performed after White Balance adjustment.

1) Input FUBK pattern to Antenna jack.
2) Select S-BRI of SVC-3 mode.
3) Press VOL ◀/▶ until (a) and (b) of FUBK are distinct and press VOL ▶ twice more.

(a) (b)



• OPTION Adjustment (SVC MODE:OPTION-1, OPTION-2)

NOTE: When the EEPROM has been replaced, the Option data should be restored as the function of individual system and specification.

1) Press OK buttons on both TV set and Remote Controller at the same time to get into SVC mode.
2) Press the Yellow button several times to find OPTION-1 or OPTION-2.
3) Input the correspond OPTION data referring to Table below with the numeric buttons 0~9.

Table 1. OPTION 1 Function

Option	Code	Function	Remark
SYSTEM	0	BG Only	Single SYSTEM(CA-)
	1	BG+TAI DUAL	South East Asian DUAL
	2	BG+I+DK	W/O RF 3.58(CF-,CZ-)
	3	BG+I+DK+M	W/RF 3.58(CT-,CD-)
CCTV	0	W/O CCTV	
	1	W/CCTV	
SCART	0	Phono Jack or Camera-in Jack	
	1	Scart Jack	with RGB Input
4 KEY	0	6 Key(MENU, OK, VOL-, VOL+, PR-, PR+)	
	1	4 Key(TV/AV, ROTATE, PR-, PR+)	
EYE	0	W/O EYE	
	1	W/EYE	
TOP	0	Teletext Top function Disable	
	1	Teletext Top function Enable	
H-TONE	0	Blue Background OSD MENU	
	1	Half Tone OSD MENU	

Table 2. OPTION 2 Function

Option	Code	Function	Remark
LANG.	0 0	Multi	
	0 1	English Only	
	1 0	TWO Lang.	
LANG-INDEX	0	English	LG8993-27A/B
	1	CIS	
	2	China	
	3	Romania	
	4	Poland	
	0	English	LG8993-28A
	1	France	
	2	Hindi	
	3	Arab	
	4	Urdu	
	5	Parsi	
	0	English	LG8993-29A
	1	Indonesia	
	2	Malay	
	3	Vietnam	
	4	Thai	
CURVE	0	Fast Volume Curve	
	1	Slow Volume Curve	
TBS	0	TBS Function Disable	
	1	TBS Function Enable	
HOTEL	0	HOTEL Function Disable	
	1	HOTEL Function Enable	