
3. Alignment & Adjustment

3-1 Service Instruction

1. General Adjustment :

In general, a color TV can provide ideal visual quality by adjusting the basic settings such as the vertical size, horizontal size, focus, etc.

Display a black and white picture on the screen to check if the picture is clearly displayed.

If there are some 'spotted' points on the screen when displaying a black and white picture, degauss the screen using the degauss coil. If the spotted points remain, re-adjust the purity and the convergence. This completes the basic performance examination.

Notice.

- These adjustments and the check list are only applied to KS9C chassis-applied models.
- use 110v for the measurement set. It is recommended using an insulation transformer when supplying power to the set so as to prevent shock to the set or to yourself.
- These adjustment specifications have been created on the basis of the domestic KS9C chassis-applied remote control model. Some of the contents may be changed subject to the sales location and the product specifications.

2. When replacing the Main Board :

Focus adjustment, screen voltage setting and W/B adjustment are all required.

3. When replacing the CRT Ass'y : No adjustments required.

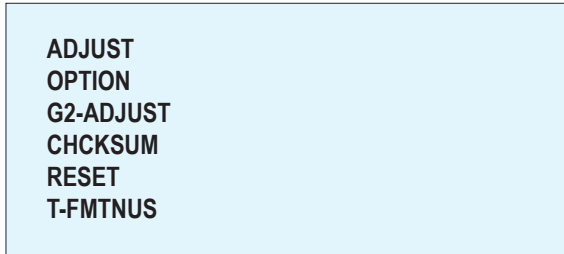
3-2 How to Access Service Mode

1. To enter Service Mode, press the keys on the remote control according to the following sequence. (in Stand-by status)

Info → Menu → MUTE → power On

※ When failing to enter Service Mode, repeat the procedure above.

2. The initial screen of Service Mode.



3. Functions of the Keys within Service Mode

MENU	Show all menus
▲ / ▼	Move the cursor to select an item.
◀ / ▶	Adjust the selected configuration value

3-3 Factory Data

★ The underlined are items applied during the service adjustment. None of the others should be adjusted.

1.T-FMTNUS

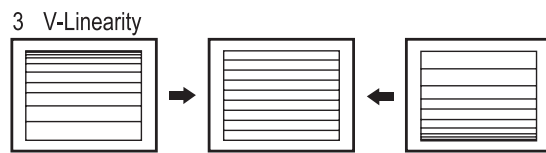
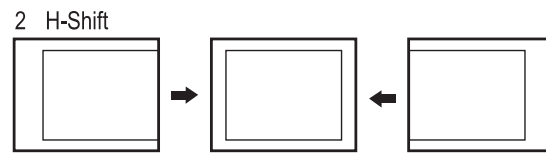
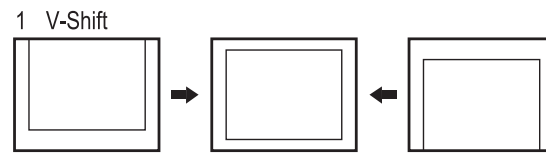
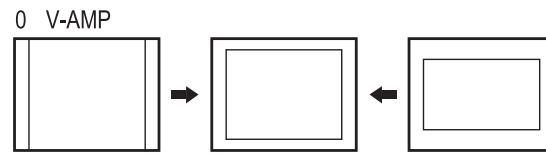
No	Item	Adjust/Fix	Initial	Remark
1	<u>HS</u>	Adjust	37	
2	<u>VA</u>	Adjust	34	
3	<u>VSL</u>	Adjust	30	
4	VS	FIX	31	
5	<u>AGC</u>	Adjust	33	
6	CDL	FIX	9	
7	<u>SCT</u>	Adjust	10	
8	<u>SBT</u>	Adjust	7	
9	<u>BLR</u>	Adjust	28	
10	<u>BLB</u>	Adjust	43	
11	<u>RG</u>	Adjust	30	
12	GG	FIX	32	
13	<u>BG</u>	Adjust	46	
14	SC	FIX	29	
15	STT	FIX	29	
16	AKB	FIX	0	
17	NDL	FIX	1	
18	NSR	FIX	5	
19	VOL	FIX	10	
20	MVOL	FIX	7	
21	RPO0	FIX	1	
22	RPO1	FIX	1	
23	CAP	FIX	12	
24	FMWS	FIX	0	
25	AGCS	FIX	1	
26	OMD	FIX	15	
27	SCL	FIX	3	
28	PWL	FIX	13	
29	MUS	FIX	1	
30	SCBT	FIX	40	
31	SSP	FIX	5	
32	DNSR	FIX	17	
33	DSBT	FIX	0	
34	DCDL	FIX	6	
35	DBLR	FIX	32	
36	DBLB	FIX	32	
37	DSK	FIX	0	

2.Option

No	Item	Initial	21"FLAT	Remark
1	Video Mute	Off	Off	Video Mute time between the Channel changes
2	Audio	STEREO	STEREO	Audio MONO/STEREO Option
3	2ND SIF	EXTERNAL	EXYERNAL	SIF Option
4	Auto Power	Off	Off	Turns on automatically when the Master Power is turned ON
5	Audio Mute	On	On	Mutes the Audio when the there is no source signal
6	Start Language	English	English	Preset OSD (On-Screen Display) laguage at time of purchase
7	Hotel Mode	Off	Off	
8	Blue Screen	On	On	Blue Screen when there is no source signal
9	V-Chip	Off	Off	
10	AV Option	AV1/2/DVD/SV	AV1/2/DVD	Back Jack Option
11	AFN	Off	Off	

3.White Balance

No	Item	21"FLAT	Remark
1	Hight Light	275/265/45FL	
2	Low Light	275/265/1.5FL	

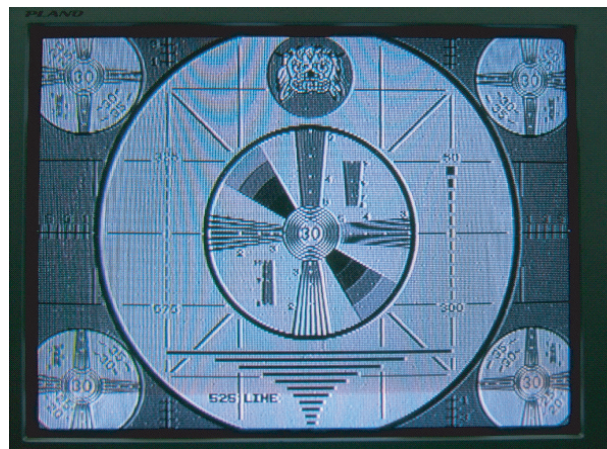


3-4 Service Adjustment

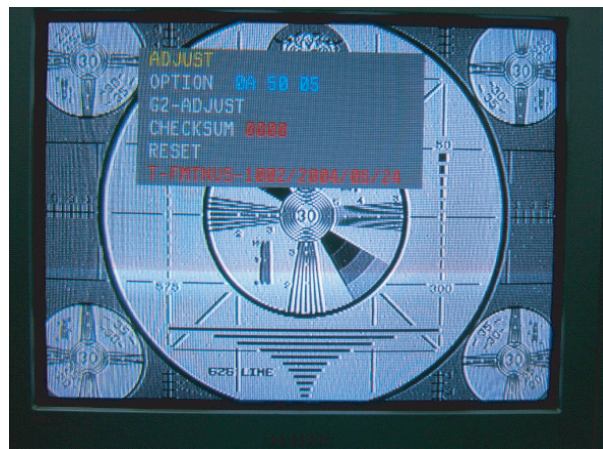
3-4-1 Adjusting the Picture Size

- Since the KS9C chassis has the deflection settings data within the Factory Data, the picture size has to be adjusted when replacing Main Board, according to the following procedures.

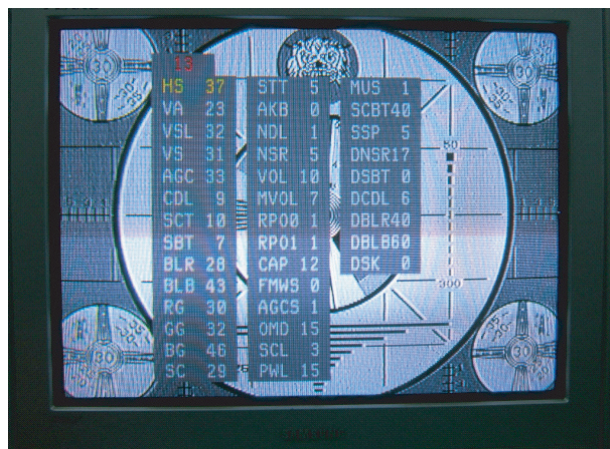
① Display the Lion pattern.



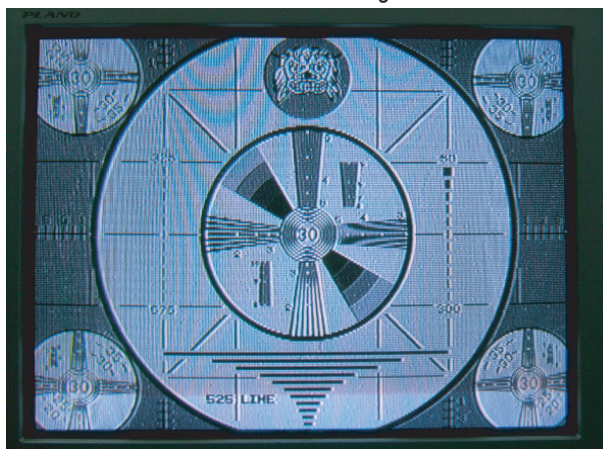
② Press "Power Off → MUTE → 1 → 8 → 2 → Power On " using the remote control and enter Factory Mode.



③ Enter Deflection Mode.

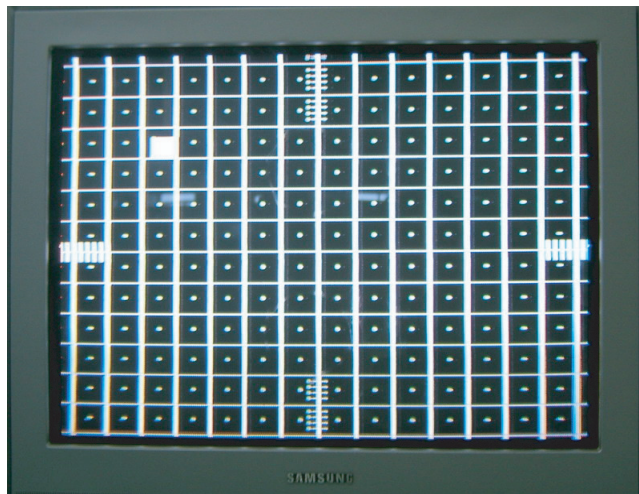


④ Adjust the VA, VS, VSL and HS items so that the width becomes 5 and the height becomes 4.



3-4-2 Adjusting the Picture Straight Lines

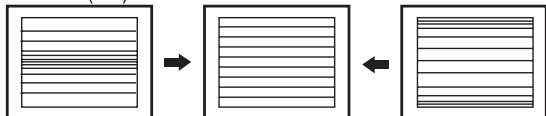
- ① Display the Cross Hatch pattern.



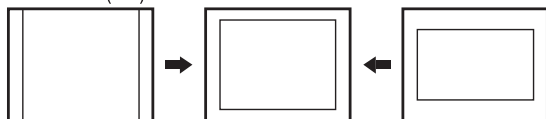
- ② Adjust settings other than VA, VH and HS so that straight lines are displayed without curves.

- ③ Adjust the V-Linearity and V-SC settings so that the intervals of the horizontal lines become uniform.

4 V SC(SC)



0 V-AMP(VA)

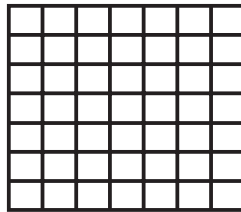
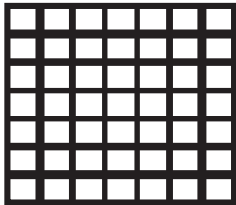
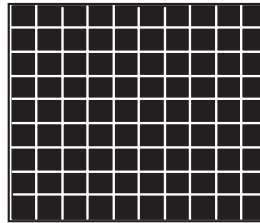
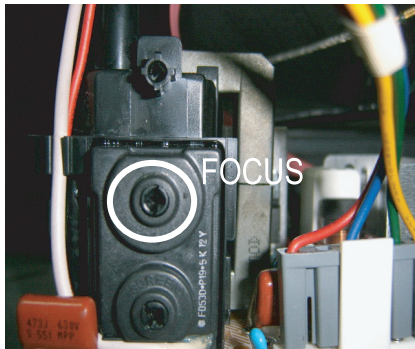


- ④ When the adjustments are complete, display the Lion pattern and check that the picture size has not been changed.
If there is no change, finish the adjustments.

3-5 Replacements & Calibration

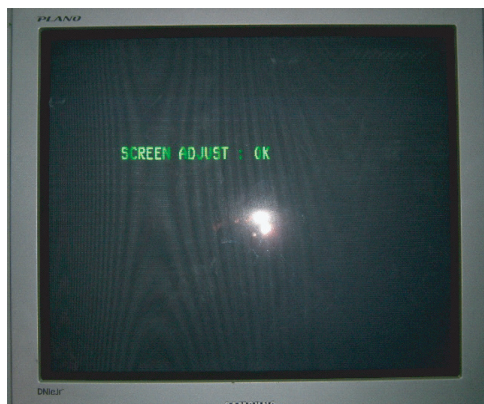
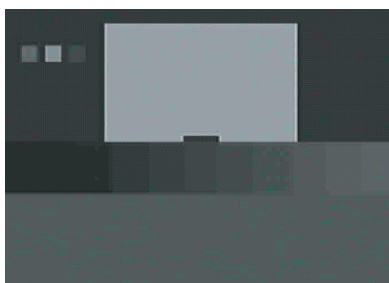
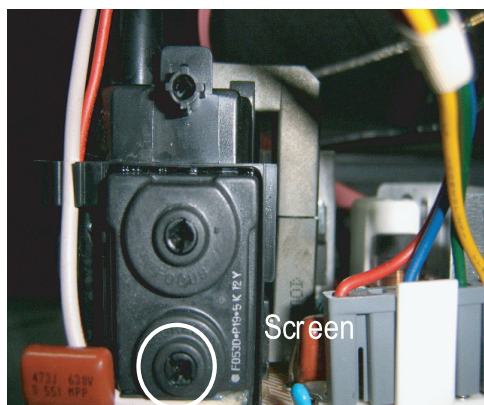
3-5-1 Adjusting the Focus

1. Display the CROSS Hatch pattern.
2. Turn the Focus clockwise to the optimal position.
3. Slowly turn the Focus clockwise so that the cross line is the most clearly displayed.



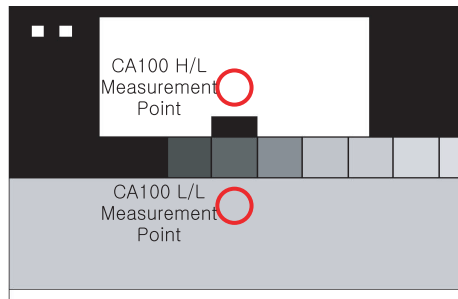
3-5-2 Adjusting the Screen Voltage

1. Select "Power Off →MUTE→1→8→2→Power On " to enter Service Mode.
2. Turn to toshiba pattern
3. Use remocon come into " G2 Adjust" mode by hand or automatically.
4. Turn Screen VR of FBT and confirm the characters below changed to GREEN.



3-5-3 Adjusting the White Balance

1. Initialize all settings to the values appropriate to the corresponding model.
2. Select "Power Off → Mute → 1 → 8 → 2 → Power On" to enter Service Mode.
3. Initialize all settings to the values appropriate to the corresponding model.
4. Display the Toshiba pattern and adjust the White Balance using CA100 with the coordinates of the corresponding model.



[CA100]

5. Enter Video Adjust1 of Service Mode. Adjust Low/Light.
 - Adjust Sub Bright to set Y.
 - Adjust B Cutoff to set y.
 - Adjust R Cutoff to set x.
6. Enter Video Adjust1 of Service Mode. Adjust High/Light.
 - Adjust Sub Contrast to set Y.
 - Adjust B Drive to set y.
 - Adjust R Drive to set x.
7. Check Low/Light and readjust it if its value has been changed.
8. If you have readjusted Low/Light, readjust High/Light until the two values are identical to the coordinates of the corresponding model.

※ White Balance Standard Data

No	Item	TSE		Required Adjustment
		21"SDI AK		
1	White Balance	High: x : 275 y : 265 Y : 45FL	Low: x : 275 y : 265 Y : 1.5FL	White Balance (Standardization Applied)

3-5-4 Check List for the Screen Voltage and White Balance Adjustment

1. The Screen Voltage and White Balance are connected each other, and both of them have to be configured to the correct values.
2. Adjust the White Balance after the Screen Voltage was adjusted, and check if the Screen Voltage is normal after adjusting the White Balance.
3. If the White Balance is readjusted, check the Screen Voltage again.
4. When the adjustment is finished, check the following checklist.
 - If there is a spot on the screen when turning the TV set off/on, adjust the Screen Voltage again.
 - If there is a ghost line on the screen, adjust the Screen Voltage again.