

## 4. ALIGNMENT INSTRUCTIONS

### 1. SERVICE REMOCON & EEPROM PRESETTING DATA

1-1. SERVICE REMOCON : R-34SVC (S/N:48B3034SVC)

1-2. EEPROM PRESETTING DATA

KEY	Name	Details	BARE			NORMAL		FLAT		WIDE	remark
			PAL	NTSC	NT=PAL+xxx	PAL	NTSC	PAL	NTSC		
S1	Heat-Run	-	-			-					
S2	Screen	-	-			-					
S3	Sound Test	-	-			-					
S4	Picture Test	-	-			-					
S5	BCL	BCL THR	-			200		180			
		BCL GAIN				12		12			
		WHITE PEAK				ON		ON			
S6	Geometry	V-CENTER	3930	3952	182	4170		3550			ADJUST DATA
		V-SIZE	121	120	-1	147	152	164	169		ADJUST DATA
		H-CENTER	82	83	1	86		88			ADJUST DATA
		H-SIZE	-160	-294	-134	560	410 950	800			ADJUST DATA
		PARABOLA	-160	-158	2	-92		-140		-71	ADJUST DATA
		EW TRAPEZ	36	-3	-39	66		41			
		CORNER	120	120	0	90		55			
		H BOW	143	140	-3	-277		-2			
		H PARALL	-2	-2	0	20		10			ADJUST DATA
		V LINEAR	-3	-5	+2	1		3			
S7	PIP	S CORRECT	-27	-27	0	-22		-32			
		P H POS	29			33		33			
		P V POS	9			27		27			
		P R/G/B Peak	150/150/150			85/85/85		85/85/85			
		P CONT	04			10		10			
S8	WHITE BALANCE	P BRIGHT	01			15		15			
		R/G/B DRIVE	170/170/170			195/195/195		175/175/175			
		R/G/B BIAS	40/40/40			80/80/80		80/80/80			
S9	SUB BRI	BRM	140			140		140			For SUB-Bright Adjust Reference
S10	NORMAL DATA	BRIGHT	32			32		32			
		CONTRAST	58			63		63			
		COLOR	32			32		32			
		SHARPNESS	48			48		48			
S11	OPTION	PIP									ME/MP:ON, MZ/MT:OFF
		DIGITEYE	ON			ON		OFF			
		TEXT SEL									
		TELETEXT									ME/MT:ON, MZ/MP:OFF
		LARGE	OFF			ON		ON			
		VID FRAME	OFF			ON		ON			
		HOTEL VOL	+00000			+00000		+00000			
		HOTELMODE	OFF			OFF		OFF			
S12	Shipping	-	-			-					
SVC Main Menu		CONT	32			32		32			
		IBRM	140			30		30			For Screen Adjust Reference

## ALIGNMENT INSTRUCTIONS

### ■ SVC KEY EXPLAIN

(S5) BCL THD : MAX BEAM CURRENT ADJUST,DIFFERENT DATA FOR INCH.

BCL GAIN : AVERAGE BEAM ADJUST.

(S6) GEOMETRY : PAL (50Hz) adjust.

AV NTSC is auto correction.

(S10) NORMAL : PICTURE NORMAL data setting.

(SLEEP) : TXT CHECK ON LINE

(SIZE) : GAME FUNCTION CHECK ON LINE

(S11) OPTION

- HOTEL VOLUME : HOTEL MODE MAX VOL DATA SETTING

- HOTEL MODE OFF : ON--> VOL MAX SET& INSTALL DONT OPERATING

\* Software option for Function Change

PIP (ON)	- ON : With PIP Models (xxxxME/MP serie) - OFF : Without PIP Models (xxxxMT/MZ serie)
Digital EYE (ON)	- ON : Enable the Digital Sensor (DTC-29M5xx, KR29M5-xx) - OFF : Disable the Digital Sensor (DTC-29U1xx, DTC-29U5xx)
LARGE (OFF)	- ON : For 29 inch Models CM-907/F - OFF : For 14~21" inch Models CM-907S
TEXT sel. (OFF)	LATIN : English,French,Swedish,Czech,German,Spanish,Italian,Estonian EAST: English,Slovakian,Hungarian,Serbian,Albanian,Polish,Turkian,Rumanian RUSSIA : English,Russian,Bulgaian,Ukrainian,Serbian,Montenegro PERSIAN : English,Farsi ARAB : English,Arabic OFF : Teletext Language depends on OSD Language selection ※ Note : If OSD language & text selec. is different then Teletext depends on Text selec.

#### 2.The confirmation of Protection circuit

Protection circuit confirmation is omitted in case of mass production in the factory

##### 2-1. Over Current Protecior (OCP) circuit confirmation

2-1-1. Receive PAL RETMA PATTERN(signal of company:2CH., PAL-B) and adjust STANDARD MODE in PICTURE.

2-1-2. Connect 1M $\Omega$  1/2W between BASE of Q801 and GND, to confirm operating of PROTECTOR.

The next place, to confirm normal operation when the resister(1M $\Omega$ ) is removed.

2-1-3. After Main Power Switch OFF/ON, to confirm normal operation of picture and sound when turn the set on by remocon.

### 3.The adjustment of SCREEN

- 3-1. Confirm the presetting 'IBRM' data of EEPROM according to CRT.
- 3-2. Press the [S2] KEY of SVC Remocon, horizontal line will be displayed.
- 3-3. Adjust SCREEN V/R of FBT so that the horizontal line reach the cut-off point.
- 3-4 To be completed adjustment of screen. Press the [S2] key to escape screen adjustment mode.

### 4.The adjustment of FOCUS

- 4-1. Receive PAL RETMA PATTERN(signal of company:2CH., PAL-B).
- 4-2. Adjust the picture to best distinct picture of 350 Line by revolve Focus Volume.

### 5.The adjustment of WHITE BALANCE

- 5-1. NITSUKI Setting : Set Nitsuki to the 'Auto Mode', Reference to the 'B', and System to the 'PAL'.
- 5-2. Setting the Normal Stats
  - 5-2-1. Adjust Picture to Normal mode.
  - 5-2-2. Adjust the Gain of Nitsuki to suitability by manual when condition is Normal.
    - Adjust the standard illumination take within limit bright of Nitsuki and luminosity of SET into account.
    - Exhortative Standard illumination, : High 70Cd/m<sup>2</sup>, LOW BEAM : about 15Cd/m<sup>2</sup>"
  - 5-2-3. Press the [S8]key of SVC remocon to adjustment of Whit Balance.  
X=0.288, Y=0.301
  - 5-2-4. Memorize in Nitsuki after Adjustment of White Balance.
- 5-3. Adjustment of White Balance
  - 5-3-1.Receive Nitsuki signal.
  - 5-3-2.Adjust Picture to Normal mode.
  - 5-3-3.The Adjustment of High Beam : Adjust R-DRIVE and G-DRIVE to R,G,B BAR come to center.
  - 5-3-4.The Adjustment of Low Beam : Adjust R-BIAS and G-BIAS to R,G,B BAR come to center.
  - 5-3-5.Repeat 5-3-3 and 5-3-4 to R,G,B BAR come to within center  $\pm 1$ .

### 6.The adjustment of GEOMETRY

- 6-1. Press the [S-6]key on the SVC remocon to call up the Geometry mode.  
And then, Geometry OSD will be displayed.
- 6-1-1. All adjustment is base on PAL(50Hz),  
but it can be base on NTSC(60Hz) in case of need.
- 6-2. The adjustment of VERTICAL CENTER
  - 6-2-1.Receive PAL RETMA pattern(signal of company:PAL-B 2CH).
  - 6-2-2.Press the PR up/down Keys(▲/▼) to select V CENTER.  
Adjust with Vol Up/Down (◀/▶) keys so that the center mark of the CRT may be located on the horizontal line in the middle of the pattern. In case of no center mark, adjust with Vol Up/Down (◀/▶) keys to obtain a vertically symmetrical pattern.

## ALIGNMENT INSTRUCTIONS

### 6-3. The adjustment of VERTICAL SIZE

6-3-1. Receive PAL RETMA pattern(signal of company:PAL-B 2CH).

6-3-2. Press the PR up/down Keys (▲/▼) to select V-SIZE.

Adjust with Vol Up/Down (◀/▶) keys so that the upper and the lower of RETMA pattern may be located at the boundaries of the screen.

### 6-4. The adjustment of HORIZONTAL CENTER

6-4-1. Receive PAL RETMA pattern(signal of company:PAL-B 2CH).

6-4-2. Press the PR up/down Keys (▲/▼) to select V-SIZE.

Referring to the both side scales, adjust with Vol Up/Down (◀/▶) keys so that RETMA pattern may be symmetrical.

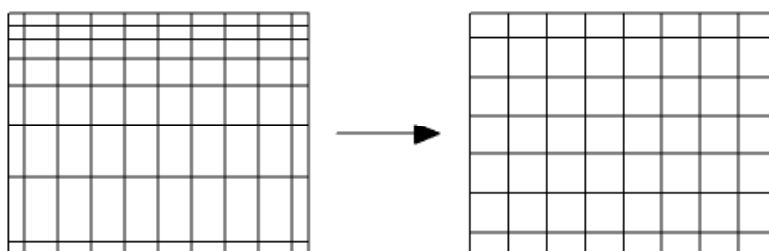
### 6-5. The adjustment of Vertical Linearity

6-5-1. Receive PAL CROSSHATCH pattern(signal of company:PAL-B 5CH).

6-5-2. Fix adjustment of Vertical Linearity after EEPROM presetting,  
but it can be adjusted in case of need.

6-5-3. Press the PR up/down Keys (▲/▼) to select V LINEAR.

Adjust Vertical Linearity with Vol Up/Down (◀/▶) keys.



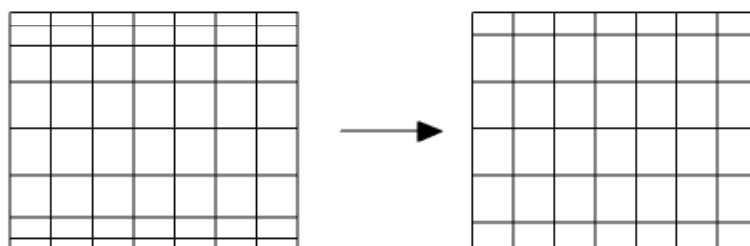
### 6-6. The adjustment of VERTICAL S-Correction

6-6-1. Receive PAL CROSSHATCH pattern(signal of company:PAL-B 5CH).

6-6-2. Fix adjustment of Vertical S-Correction after EEPROM DATA presetting,  
but it can be adjusted in case of need.

6-6-3. Press the PR up/down Keys (▲/▼) to select S CORRECT.

Adjust S-Correction with Vol Up/Down (◀/▶) keys.



## 7. THE ADJUSTMENT OF SUB-PICTURE (SUB-BRIGHT,SUB-CONTRAST)

7-1. Receive PAL RETMA PATTERN(signal of company:2CH., PAL-B)

7-2. Press the [S9] KEY of SVC Remocon, BRM OSD wil be displayed.

7-3. The adjustment of SUB-BRIGHT

7-3-1. Press the PR up/down Keys (▲/▼) to select SUB-BRIGHT in SUB-PICTURE MENU.

Adjust SUB-BRIGHT with Vol Up/Down (◀/▶) keys.

7-3-2. Adjust With BRM, When SUB-BRIGHT is lacking in margin of adjustment.

7-3-3. Standard of adjustment : Adjust till instant of 1, 2th cordon disappear in  
RETMA CONTRAST CHART(signal of company).

7-3-4. When Sub-Picture mode was exited after SUB's adjustment, Normal vlaue is  
brighter(about 18%) than adjustment-point(about 10%) of adjustment-mode because  
BRIGHT is set to rise 2~3 step.

## 8. THE ADJUSTMENT OF PIP

8-1. Receive PAL RETMA pattern(signal of company:PAL-B 2CH) and Color Bar.

8-2. Press the [S7] KEY of SVC Remocon, PIP-Adjustment OSD wil be displayed.

8-3. Fix adjustment of PIP after EEPROM DATA presetting,  
but it can be adjusted in case of need.

8-4. Adjust PIP after GEOMETRY, WHITE BALANCE and SUB-BRIGHT are adjusted.

8-5. List of adjustment

① PIP H POSITON : Adjustment of H-position Sub-Picture.

(Reference : Presetting Value of EEPROM = 38)

② PIP V POSITON : Adjustment of V-position of Sub-Picture,

(Reference : Presetting Value of EEPROM = 27)

③ PIP R/G/B Peak : Adjustment of Gain of PIP IC R,G,B Output

(Reference : Presetting Value of EEPROM = 85)

④ P CONTRAST : Adjustment of AC Gain(Contrast) of PIP IC RGB Output

(Reference : Presetting Value of EEPROM = 10)

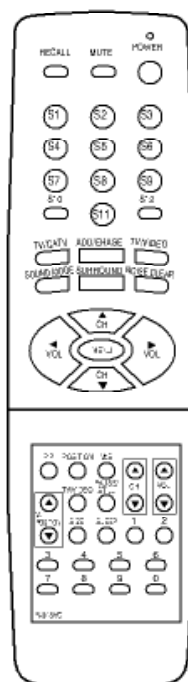
⑤ P BRIGHT : Adjustment of DC Level(SUB BRIGHT) of PIP IC RGB Output

(Reference : Presetting Value of EEPROM = 15)

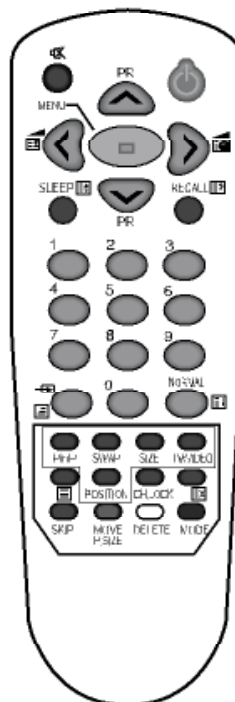
## ALIGNMENT INSTRUCTIONS

### 9. REMOCON

#### 9-1. SERVICE REMOCON



#### 9-2. USER REMOCON



#### 9-3. SERVICE REMOCON

- 1) Enter SERVICE MODE : Press keys of User Remocon, as follows.  
Ch91, Sharpness 0, Skip(red), Move(green), Menu.
- 2) Choice SERVICE MENU : Pr-Up/Down
- 3) Enter SERVICE SUB MENU : Vol-Up/Down

