

3.2 REPLACEMENT OF MEMORY IC

3.2.1 MEMORY IC

This TV uses the following memory IC.

Memory IC: IC702 on MAIN PWB

The memory IC memorizes data for correctly operating the video and deflection circuits. When replacing the memory IC, be sure to use the same type IC written with the initial values of data. In other words, use the specific IC listed in "PRINTED WIRING BOARD PARTS LIST". For its mounting location, refer to "ADJUSTMENT LOCATIONS".

3.2.2 PROCEDURE FOR REPLACING MEMORY IC

1. Power off

Switch the power off and unplug the power cord from the wall outlet.

2. Replacing the memory IC

Replace the memory IC with new one. Be sure to use the memory IC written with the initial data values.

3. Power on

Plug the power cord into the wall outlet and switch the power on.

4. Check and setting of SYSTEM CONSTANT SET:

- (1) Press the [DISPLAY] key and the [PICTURE MODE] key on the remote control unit simultaneously. The SERVICE MENU screen will be displayed. (See Fig.1.)
- (2) In the SERVICE MENU, press the [DISPLAY] key and [PICTURE MODE] key simultaneously. Then, the SYSTEM CONSTANT SET screen will be displayed. (See Fig.2.)
- (3) Check whether the setting values of the SYSTEM CONSTANT SET are the same as those indicated in Table1.
If the value is different, select the setting item with the MENU [▼]/[▲] key, and set the correct value with the MENU [◀]/[▶] key.
- (4) Press the [DISPLAY] key twice to return to the normal screen.

5. Receive channel setting

Refer to the **OPERATING INSTRUCTIONS** and set the receive channels (channels preset).

6. User setting

Check the user setting values in Table 2 and Table 3. If setting value is different, set the correct value.
For setting, refer to the **OPERATING INSTRUCTIONS**.

7. Setting of SERVICE MENU

Verify the setting for each setting item in the SERVICE MENU. (See Table 4.) If readjustment is necessary, perform adjustment referring to "ADJUSTMENTS PROCEDURE".

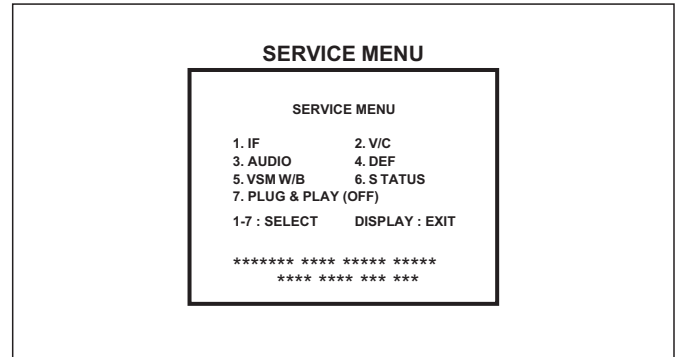
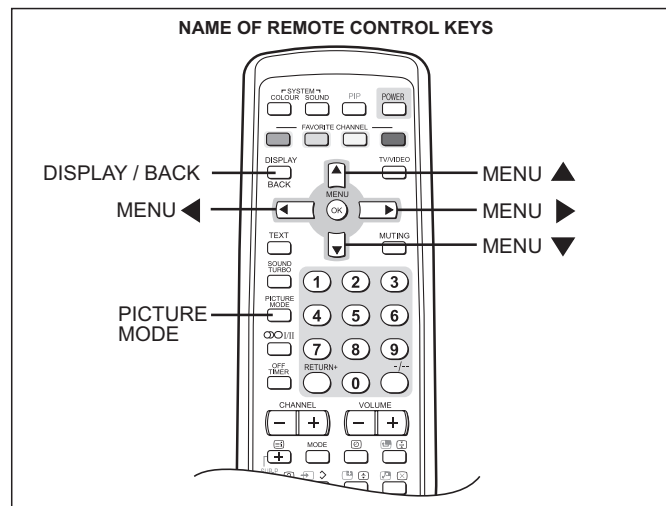


Fig. 1

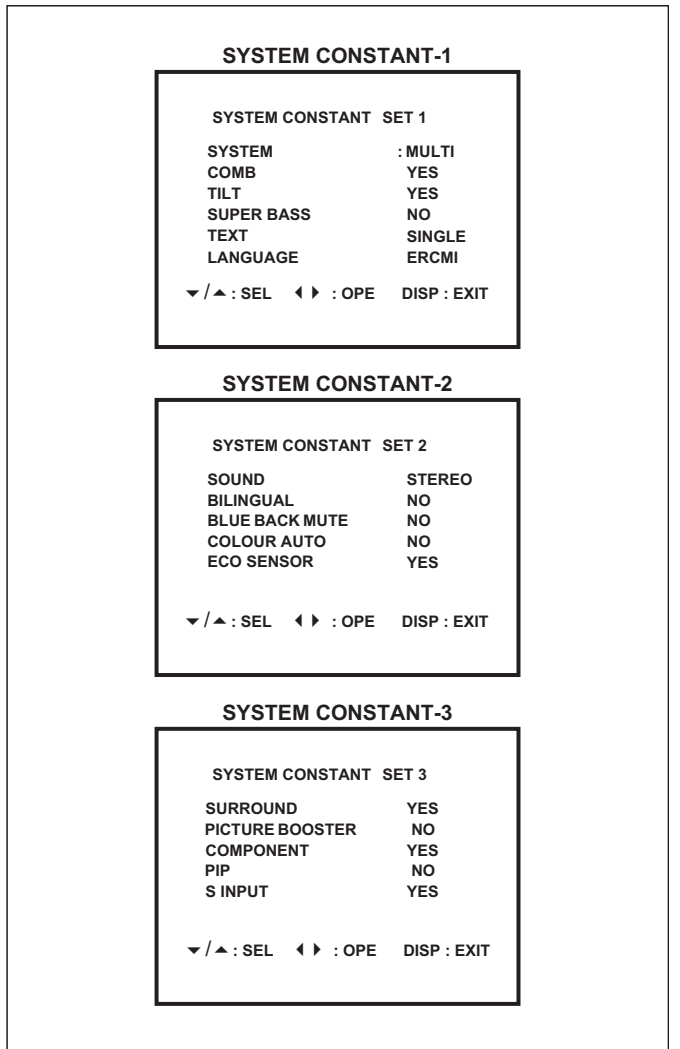


Fig. 2

3.2.3 FACTORY SHIPMENT SETTING VALUE

■ SETTING OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value		
		AV-29VS24	AV-29VX74/G	AV-2984V/E
SYSTEM	→ MULTI ↔ TRIPLE ↔ PAL ↔ THAI ←	MULTI	←	←
COMB	→ YES ↔ NO ←	YES	←	←
TILT	→ YES ↔ NO ←	YES	←	←
SUPER BASS	→ YES ↔ NO ←	NO	←	←
TEXT	→ SINGLE ↔ NO ↔ PAT ←	SINGLE	←	←
LANGUAGE	→ E/R/C/M/I ↔ E/C ←	E/R/C/M/I	---	---
	E/R/A/P/F	---	E/R/A/P/F	---
	E/R/U	---	---	E/R/U
SOUND	→ STEREO ↔ PB ↔ MONO ←	STEREO	PB	STEREO
BILINGUAL	→ YES ↔ NO ←	NO	←	←
BLUE BACK MUTE	→ YES ↔ NO ←	NO	←	←
COLOUR AUTO	→ YES ↔ NO ←	NO	YES	NO
ECO SENSOR	→ YES ↔ NO ←	YES	←	←
SURROUND	→ YES ↔ NO ←	YES	←	←
PICTURE BOOSTER	→ YES ↔ NO ←	NO	←	←
COMPONENT	→ YES ↔ NO ←	YES	←	←
PIP	→ YES ↔ NO ←	NO	YES	←
S INPUT	→ YES ↔ NO ←	YES	←	←

Table 1

■ SETTING OF BASIC FUNCTIONS

Setting item	Setting value
POWER	Off
SUB POWER	On
VOLUME	15
COLOR SYSTEM	PAL
SOUND SYSTEM	B/G
PICTURE MODE(VSM)	BRIGHT
CINEMA SURROUND	OFF
OFF TIMER	0
STEREO MODE	STEREO[AV-29VS24, AV-2984/E]
CHANNEL POSITION	PRESET 1

Table 2

■ SETTING OF MENU SCREEN

Setting item	Setting value
INPUT	TV
VNR	AUTO
COMPRESS (16:9)	OFF
PICTURE TILT	▼ ▲
AUTO SHUTOFF	OFF
CHILD LOCK	OFF
BLUE BACK	ON
VIDEO-2 SET	VIDEO
AUTO CH PRESET	Refer to OPERATING INSTRUCTIONS
MANUAL CH PRESET	Refer to OPERATING INSTRUCTIONS
LANGUAGE	ENG
TEXT LANGUAGE	GROUP-1[AV-29VS24] GROUP-3[AV-2984V/E] GROUP-4[AV-29VX74/G]
TINT	Centre
COLOUR	Centre
BRIGHT	Centre
CONT	Maximum
SHARP	Centre
BALANCE	Centre
SOUND MODE	DYNAMIC
SOUND TURBO	OFF
AI VOLUME	ON
FAVORITE CH RED	PR1
FAVORITE CH GREEN	PR2
FAVORITE CH YELLOW	PR3
FAVORITE CH BLUE	PR4
AI ECO SENSOR	OFF
AI ECO DISPLAY	ON

Table 3

■ SERVICE MENU SETTING ITEMS

Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT
2. V/C	1. SCREEN DATA 2. CUTOFF(B/G) 3. WDR(R/G/B) 4. BRIGHT(TV/VDO 1/2/3) 5. CONT(TV/VDO 1/2/3/TV 16:9/VDO 16:9) 6. COLOUR(TV/VDO 1/2/3/DVD) 7. TINT(TV/VDO 1/2/3) 8. SHARP 9. Y DELAY 10. TINT DVD 11. AMP T. SHARP [Do not adjust]
3. AUDIO	1. DCXO ADJ 2. NICAM lower ERR LIM 3. NICAM upper ERR LIM 4. A2 ID THR 5. MENU EQUALIZER
4. DEF	1. V-SHIFT 2. V-SLOPE 3. V-SIZE 4. H-CENT 5. H-SIZE 6. TRAPEZ 7. EW-PIN 8. COR-UP 9. COR-LO 10. ANGLE 11. BOW 12. V-S.CR 13. V-LIN 14. V-ZOOM 15. V-SCROLL
5. VSM W/B (BRIGHT/STANDARD/SOFT) [Do not adjust] (COOL/WARM/NORMAL)	1. BRIGHT 2. CONT 3. COLOUR 4. SHARP 5. HUE 1. R DRIVE 2. G DRIVE 3. B DRIVE
6. STATUS [Display only]	
7. PLUG & PLAY(ON) [Display only]	

Table 4

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

- (1) Avoid heating for more than 3 seconds.
- (2) Do not rub the electrodes and the resist parts of the pattern.
- (3) When removing a chip part, melt the solder adequately.
- (4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

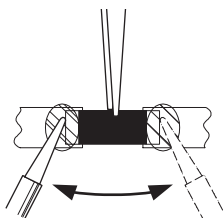
- (1) Use a high insulation soldering iron with a thin pointed end of it.
- (2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

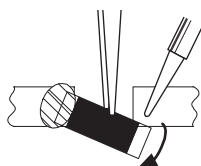
1. How to remove Chip parts

[Resistors, capacitors, etc.]

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with tweezers and remove the chip part.

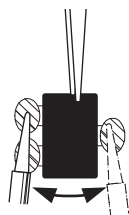


[Transistors, diodes, variable resistors, etc.]

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



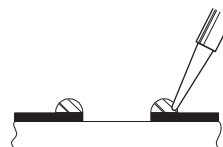
Note :

After removing the part, remove remaining solder from the pattern.

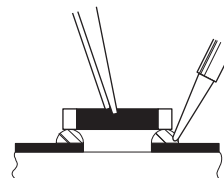
2. How to install Chip parts

[Resistors, capacitors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.

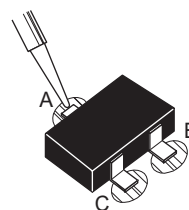


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

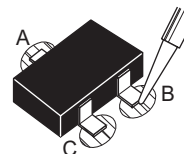


[Transistors, diodes, variable resistors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.



- (4) Then solder leads B and C.



SECTION 4 ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

- (1) You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts as given below.
- (2) Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values used for setting the screen to its optimum condition may differ from the initial settings.
- (3) Make sure that AC power is turned on correctly.
- (4) Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
- (5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
- (6) Never touch any adjustment parts, which are not specified in the list for this variable resistors, transformers, trimmer capacitors, etc.

4.2 PRESETTING BEFORE ADJUSTMENT

Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

■ User mode setting position

Setting item	Setting value
PICTURE MODE (VSM)	BRIGHT
TINT, COLOUR, BRIGHT, SHARP	Centre
CONT	Maximum
VNR	OFF
AI ECO SENSOR	OFF
BALANCE	Centre
SOUND TURBO	OFF
CINEMA SURROUND	OFF
COMPRESS	4:3

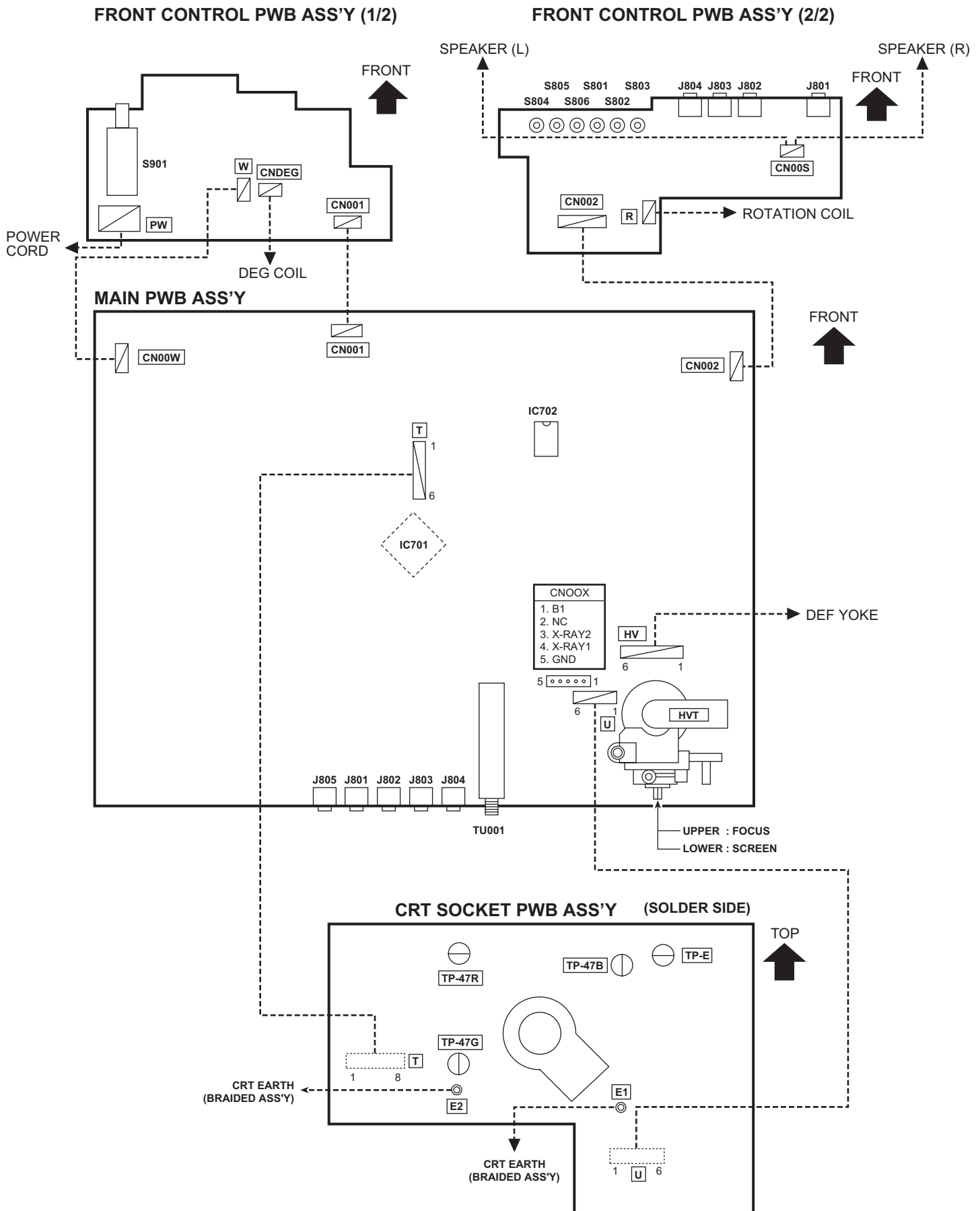
4.3 MEASURING INSTRUMENT AND FIXTURES

- (1) DC voltmeter (or Digital voltmeter)
- (2) Oscilloscope
- (3) Signal generator (Pattern generator) [PAL/SECAM/NTSC]
- (4) Remote control unit

4.4 ADJUSTMENT ITEMS

- B1 VOLTAGE
- FOCUS ADJUSTMENT
- IF CIRCUIT ADJUSTMENTS
 - IF VCO adjustment
 - DELAY POINT (AGC TAKE-OVER) adjustment
- VIDEO CIRCUIT ADJUSTMENTS
 - WHITE BALANCE (Low light) adjustment
 - WHITE BALANCE (High light) adjustment
 - SUB BRIGHT adjustment
 - SUB CONTRAST adjustment
 - SUB COLOUR 1 adjustment
 - SUB COLOUR 2 adjustment
 - SUB TINT 1 adjustment
 - SUB TINT 2 adjustment
- AUDIO SETTING
- DEFLECTION CIRCUIT ADJUSTMENTS
 - V.SLOPE adjustment
 - V.POSITION adjustment
 - V.HEIGHT adjustment
 - H.POSITION adjustment
 - H. WIDTH adjustment
 - SIDE PIN adjustment
 - TRAPEZIUM adjustment
 - V.S-CURVE adjustment
 - CORNER adjustment
 - H. PARALLEL adjustment
 - H.BOW adjustment
- VSM PRESET SETTING
- PURITY AND CONVERGENCE ADJUSTMENTS
 - PURITY adjustment
 - STATIC CONVERGENCE adjustment
 - DYNAMIC CONVERGENCE adjustment

4.5 ADJUSTMENT LOCATIONS



4.6 BASIC OPERATION IN SERVICE MENU

Operate the SERVICE MENU with the remote control unit.

4.6.1 SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings:

1. IF	For entering/adjusting the setting values (adjustment values) of the IF circuit.
2. V/C	For entering/adjusting the setting values (adjustment values) of the VIDEO circuit.
3. AUDIO	For entering/adjusting the setting values (adjustment values) of the AUDIO circuit.
4. DEF	For entering/adjusting the setting values (adjustment values) of the DEFLECTION circuit.
5. VSM W/B	For setting the values of STANDARD, SOFT, BRIGHT and COOL, NORMAL, WARM.
6. STATUS	This is not used for service.
7. PLUG & PLAY (ON)	This is not used for service.

4.6.2 BASIC OPERATION IN SERVICE MENU

1. HOW TO ENTER SERVICE MENU

Press the [DISPLAY] key and the [PICTURE MODE] key on the remote control unit simultaneously.
The SERVICE MENU screen will be displayed. (See Fig. 1 on the next page.)

2. SELECTION OF SUB MENU SCREEN

Press one of the keys 1 to 6 on the remote control unit, and select the SUB MENU SCREEN from the SERVICE MENU. (See Fig.1 on the next page.)

SERVICE MENU → SUB MENU

- | | |
|----------|---------------------|
| 1. IF | 5. VSM W/B |
| 2. V/C | 6. STATUS |
| 3. AUDIO | 7. PLUG & PLAY (ON) |
| 4. DEF | |

3. METHOD OF SETTING

NOTES:

- Once the setting values are set, they are memorized automatically.
- It must not be adjusted without inputting a signal.

(1) 1. IF

[1.VCO] : Under normal conditions, no adjustment is required.

(a) [1] key	Select 1. IF .
(b) [1] key	Select 1. VCO .
(c) [DISPLAY] key	When this is pressed twice, you will return to the SERVICE MENU.

[2.DELAY POINT]

(a) [1] key	Select 1. IF .
(b) [2] key	Select 2. DELAY POINT .
(c) MENU [◀]/[▶] key	Adjust the setting value.
(d) [DISPLAY] key	When this is pressed twice, you will return to the SERVICE MENU.

(2) 2. V/C, 3. AUDIO and 4. DEF

(a) [2] ~ [4] keys	Select one from 2. V/C and 3. AUDIO , 4. DEF .
(b) MENU [▼]/[▲] key	Select setting items.
(c) MENU [◀]/[▶] key	Adjust the setting values of the setting items. Use the number keys on the remote control unit for setting the WHITE BALANCE. For the setting, refer to each item concerned.
(d) [DISPLAY] key	When this is pressed, you will return to the SERVICE MENU.

(3) 5. VSM W/B

(a) [5] key	Select 5. VSM W/B .
(b) MENU [OK] key	Select preset items.
(c) MENU [▼]/[▲] key	Adjust setting items.
(d) MENU [◀]/[▶] key	Adjust the setting values of the setting items.
(e) [DISPLAY] key	When this is pressed, you will return to the SERVICE MENU.

(4) 6. STATUS

This is for display only.

(5) 7. PLUG & PLAY (ON)

This is not used for service.

4. Release of SERVICE MENU

After completing the setting, return to the SERVICE MENU by pressing the [DISPLAY] key, then again press the [DISPLAY] key to return to the normal screen.

4.6.3 SERVICE MENU FLOW CHART

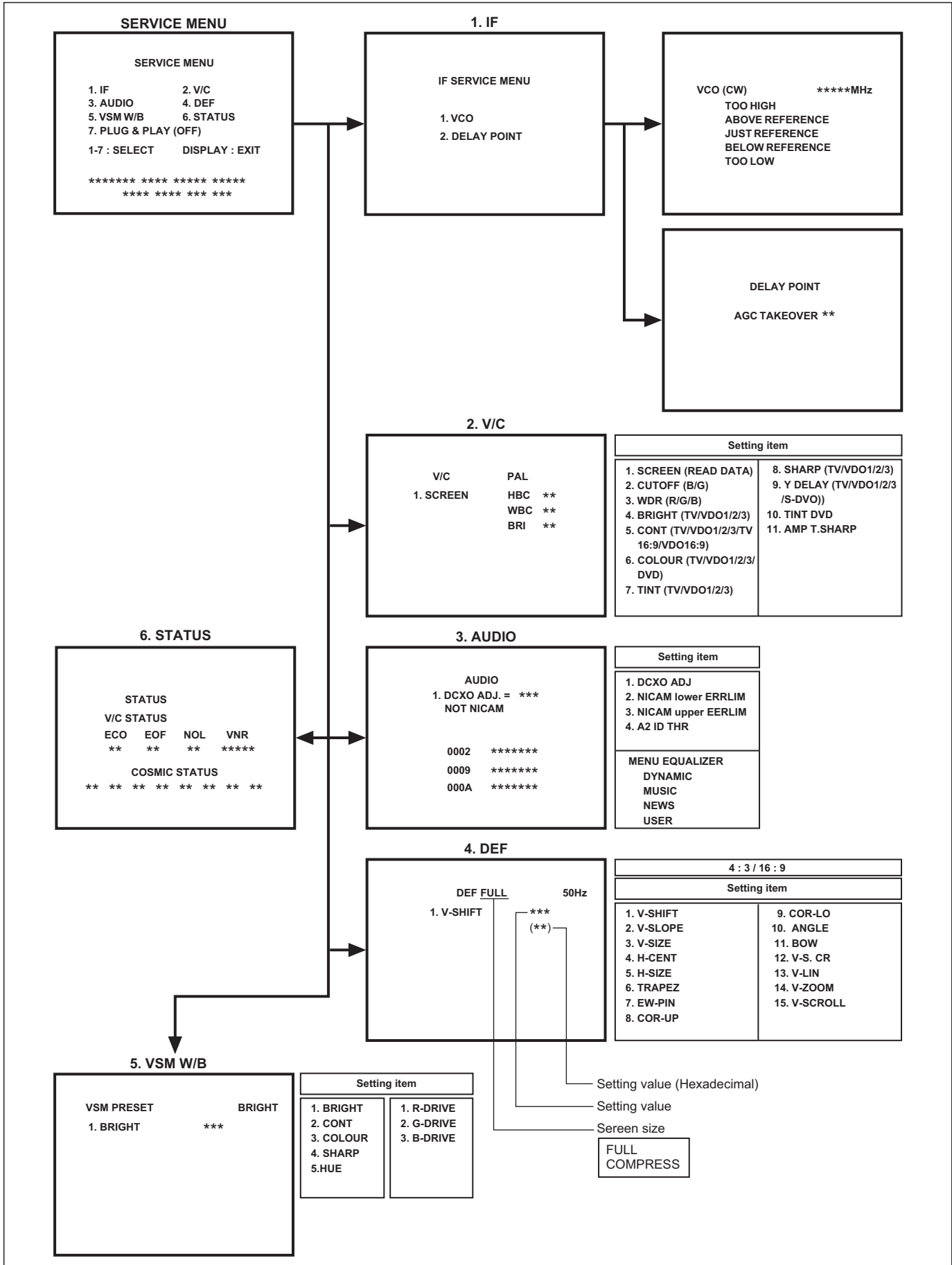


Fig. 1

4.7 ADJUSTMENT PROCEDURE

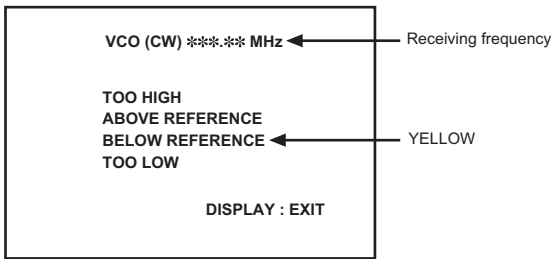
4.7.1 B1 VOLTAGE

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE check	Signal generator DC voltmeter	B1 (pin 1) GND (pin 5) [CN00X connector in MAIN PWB]		(1) Receive a black and white signal. (2) Connect a DC voltmeter between B1 and GND (between pins 1 and 5 of the connector CN00S). (3) Make sure that the voltage is DC134.5V ± 2V .

4.7.2 FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator		FOCUS VR [In HVT]	Notes: <ul style="list-style-type: none"> Set PICTURE MODE (VSM) to "BRIGHT". [AV-29VS24 only] The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is affected by the FOCUS adjustment.) If any deviation in CONVERGENCE is found, PURITY must be adjusted to restore the convergence. (1) Receive a crosshatch signal. (2) Adjust the FOCUS VR so that the vertical and horizontal lines will be clear and in fine detail on the screen. (3) Make sure that the picture is in focus even when the screen gets darkened.

4.7.3 IF CIRCUIT ADJUSTMENTS

Item	Measuring instrument	Test point	Adjustment part	Description																		
IF VCO check	Remote control unit		[1. IF] 1. VCO (CW)	Note: <ul style="list-style-type: none"> Under normal conditions, no adjustment is required. (1) Receive a broadcast signal. (2) Select 1. IF from the SERVICE MENU. (3) Select 1. VCO . (4) Check the characters colour of the BELOW REFERENCE displayed to yellow . (5) Press the [DISPLAY] key three times to return to normal screen.																		
																						
DELAY POINT (AGC TAKE-OVER) adjustment	Remote control unit		[1. IF] 2. DELAY POINT	(1) Receive a black and white broadcast signal (colour off). (2) Select 1. IF from the SERVICE MENU. (3) Select 2. DELAY POINT . (4) Adjust in order to eliminate any noise or beat from the image. Any increase above the initial value produces the noise and any decrease below it produces the beat. (5) Press the [DISPLAY] key three times to return to the normal screen. (6) Turn to other channels and make sure that there are no irregularities.																		
<table border="1"> <thead> <tr> <th rowspan="3">Adjustment item</th><th colspan="4">Initial setting value</th></tr> <tr> <th colspan="2">NTSC 3.58</th><th colspan="2">OTHERS</th></tr> <tr> <th>VHF</th><th>UHF</th><th>VHF</th><th>UHF</th></tr> </thead> <tbody> <tr> <td>2. DELAY POINT (AGC TAKE-OVER)</td><td>30</td><td>30</td><td>30</td><td>30</td></tr> </tbody> </table>					Adjustment item	Initial setting value				NTSC 3.58		OTHERS		VHF	UHF	VHF	UHF	2. DELAY POINT (AGC TAKE-OVER)	30	30	30	30
Adjustment item	Initial setting value																					
	NTSC 3.58		OTHERS																			
	VHF	UHF	VHF	UHF																		
2. DELAY POINT (AGC TAKE-OVER)	30	30	30	30																		

4.7.4 VIDEO CIRCUIT ADJUSTMENTS

- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- Do not change the initial setting values of the setting (adjustment) items not listed in "ADJUSTMENT PROCEDURE".

[AV-29VS24]

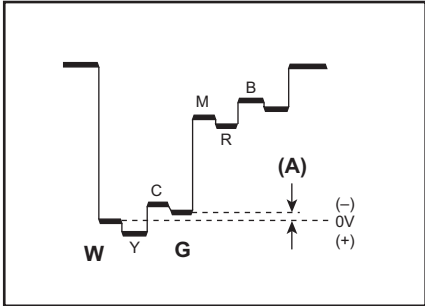
Adjustment item		Variable range	Initial setting value					
			PAL	SECAM	NTSC3.58	NTSC4.43	COMPONENT(V-2)	
							525i	625i
1. SCREEN	BRI	0 ~ 63	32	32	32	32	32	32
2. CUTOFF	B	0 ~ 63	11	11	11	11	32	32
	G	0 ~ 63	7	7	7	7	32	32
3. WDR	R	0 ~ 63	32	32	32	32	0	0
	G	0 ~ 63	32	32	32	32	0	0
	B	0 ~ 63	45	45	45	45	0	0
4. BRIGHT	RF	0 ~ 63	39	39	39	39	0	0
	VIDEO 1(COMPOSITE/S)	-32 ~ +31	-1	-1	-1	-1	0	0
	VIDEO 2(COMPONENT)	-32 ~ +31	0	0	0	0	0	0
	VIDEO 3(COMPOSITE)	-32 ~ +31	0	0	0	0	0	0
5. CONT.	RF	0 ~ 63	32	32	32	32	---	---
	VIDEO	-32 ~ +31	+2	+2	+2	+2	+4	+4
	RF 16:9	-32 ~ +31	0	0	0	0	---	---
	VIDEO 16:9	-32 ~ +31	---	---	---	---	---	---
6. COLOUR	RF	0 ~ 63	42	32	37	-3	---	---
	VIDEO	-32 ~ +31	-1	0	-3	0	+7	0
7. TINT	RF	-32 ~ +31	---	---	+27	-4	---	---
	VIDEO	-32 ~ +31	---	---	+4	+11	---	---
8. SHARP	RF	0 ~ 63	22	22	22	22	---	---
	VIDEO	0 ~ 63	35	35	35	35	15	15
9. Y DELAY	RF	0 ~ 15	9	7	12	7	---	---
	VIDEO	0 ~ 15	7	7	7	7	---	---
	S-VIDEO	0 ~ 15	9	10	12	12	---	---
10. TINT DVD	RF, VIDEO, S-VIDEO	0 ~ 63	29	32	32	32	---	---
	COMPONENT	-32 ~ +31	---	---	---	---	0	-2
11. AMP T.SHARP	RF, VIDEO	0 ~ 63	0	0	0	0	0	0

[AV-29VX74/G, AV-2984V/E]

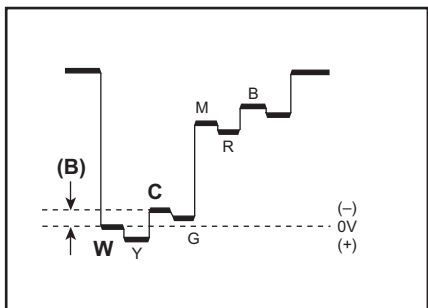
Adjustment item		Variable range	Initial setting value					
			PAL	SECAM	NTSC3.58	NTSC4.43	COMPONENT(V-2)	
							525i	625i
1. SCREEN	BRI	0 ~ 63	32	32	32	32	32	32
2. CUTOFF	B	0 ~ 63	11	11	11	11	32	32
	G	0 ~ 63	7	7	7	7	32	32
3. WDR	R	0 ~ 63	32	32	32	32	0	0
	G	0 ~ 63	32	32	32	32	0	0
	B	0 ~ 63	45	45	45	45	0	0
4. BRIGHT	RF	0 ~ 63	39	39	39	39	0	0
	VIDEO 1(COMPOSITE/S)	-32 ~ +31	-1	-1	-1	-1	0	0
	VIDEO 2(COMPONENT)	-32 ~ +31	0	0	0	0	0	0
	VIDEO 3(COMPOSITE)	-32 ~ +31	-3	-3	-3	-3	0	0
5. CONT.	RF	0 ~ 63	32	32	32	32	---	---
	VIDEO	-32 ~ +31	+2	+2	+2	+2	+4	+4
	RF 16:9	-32 ~ +31	0	0	0	0	---	---
	VIDEO 16:9	-32 ~ +31	---	---	---	---	---	---
6. COLOUR	RF	0 ~ 63	42	32	37	-3	---	---
	VIDEO	-32 ~ +31	-1	0	-3	+3	-2	0
7. TINT	RF	-32 ~ +31	---	---	+27	-4	---	---
	VIDEO	-32 ~ +31	---	---	+4	+2	---	---
8. SHARP	RF	0 ~ 63	22	22	22	22	---	---
	VIDEO	0 ~ 63	35	35	35	35	15	15
9. Y DELAY	RF	0 ~ 15	9	7	12	7	---	---
	VIDEO	0 ~ 15	7	7	7	7	---	---
	S-VIDEO	0 ~ 15	9	10	12	12	---	---
10. TINT DVD	RF, VIDEO, S-VIDEO	0 ~ 63	29	32	32	32	---	---
	COMPONENT	-32 ~ +31	---	---	---	---	+3	-2
11. AMP T.SHARP	RF, VIDEO	0 ~ 63	0	0	0	0	0	0

Item	Measuring instrument	Test point	Adjustment part	Description																									
WHITE BALANCE (Low light) adjustment	Signal generator		[2. V/C] 2.CUTOFF (B) 2.CUTOFF (G)	Note: • Set PICTURE MODE (VSM) to “BRIGHT”. (1) Receive a PAL black and white signal (colour off). (2) Select 2. V/C from the SERVICE MENU. (3) Select 2. CUTOFF (B) and (G) . (4) Set each value to initial setting value with the [4] / [7] keys and [5] / [8] keys. (5) Turn the SCREEN VR fully counterclockwise, then slowly turn it clockwise to where a red, blue or green colour is faintly visible. (6) Use the [4] / [7] and [5] / [8] keys to adjust so that the other 2 colours appear white. (7) Turn the SCREEN VR to where the single horizontal line glows faintly. (8) Press the [2] key to return to 2. CUTOFF screen. (9) Press the [DISPLAY] key twice to return to the normal screen.																									
	Remote control unit		SCREEN VR [In HVT]																										
<div><div><div>V/C 2. CUTOFF</div><div>PAL (B) ** (**) (G) ** (**)</div></div><div><div>REMOTE CONTROL UNIT</div><div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><div>9</div></div><div><div>B CUTOFF (▲)</div><div>G CUTOFF (▲)</div><div>B CUTOFF (▼)</div><div>G CUTOFF (▼)</div></div></div></div></div>																													
WHITE BALANCE (High light) adjustment	Signal generator		[2. V/C] 3.WDR (R) 3.WDR (G) 3.WDR (B)	Notes: • Proceed to the following adjustment after having completed the WHITE BALANCE (Low light) adjustment. • Set PICTURE MODE (VSM) to “BRIGHT”. (1) Receive a PAL black and white signal (colour off). (2) Select 2. V/C from the SERVICE MENU. (3) Select 3. WDR (R) , (G) and (B) . (4) Set each value to initial setting value with the [4] to [9] keys. (5) Use the [4] to [9] keys to produce a white screen. (6) Press the [DISPLAY] key twice to return to the normal screen.																									
	Remote control unit																												
<div><div><div>V/C 3. WDR</div><div>PAL (R) ** (**) (G) ** (**) (B) ** (**)</div></div><div><div>REMOTE CONTROL UNIT</div><div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><div>9</div></div><div><div>R DRIVE (▲)</div><div>G DRIVE (▲)</div><div>R DRIVE (▼)</div><div>B DRIVE (▲)</div><div>B DRIVE (▼)</div><div>G DRIVE (▼)</div></div></div></div></div>																													
<table><tr><th>Adjustment Item</th><th></th><th>Variable range</th><th>Initial setting value</th></tr><tr><td rowspan="2">2. CUTOFF</td><td>B</td><td>0 ~ 63</td><td>11</td></tr><tr><td>G</td><td>0 ~ 63</td><td>7</td></tr></table> <table><tr><th>Adjustment Item</th><th></th><th>Variable range</th><th>Initial setting value</th></tr><tr><td rowspan="3">3. WDR</td><td>R</td><td>0 ~ 63</td><td>32</td></tr><tr><td>G</td><td>0 ~ 63</td><td>32</td></tr><tr><td>B</td><td>0 ~ 63</td><td>45</td></tr></table>					Adjustment Item		Variable range	Initial setting value	2. CUTOFF	B	0 ~ 63	11	G	0 ~ 63	7	Adjustment Item		Variable range	Initial setting value	3. WDR	R	0 ~ 63	32	G	0 ~ 63	32	B	0 ~ 63	45
Adjustment Item		Variable range	Initial setting value																										
2. CUTOFF	B	0 ~ 63	11																										
	G	0 ~ 63	7																										
Adjustment Item		Variable range	Initial setting value																										
3. WDR	R	0 ~ 63	32																										
	G	0 ~ 63	32																										
	B	0 ~ 63	45																										

Item	Measuring instrument	Test point	Adjustment part	Description
SUB BRIGHT adjustment	Remote control unit		[2. V/C] 4. BRIGHT	<p>Notes:</p> <ul style="list-style-type: none"> • Proceed to the following adjustment after having completed the WHITE BALANCE (Low light) and WHITE BALANCE (High light) adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". <p>(1) Receive a broadcast. (2) Select 2. V/C from the SERVICE MENU. (3) Select 4. BRIGHT. (4) Set the initial setting value. (5) If the brightness is not best with the initial setting value, make fine adjustment until you get the best brightness. (6) Press the [DISPLAY] key twice to return to the normal screen.</p>
SUB CONTRAST adjustment	Remote control unit		[2. V/C] 5. CONT	<p>Notes:</p> <ul style="list-style-type: none"> • Proceed to the following adjustment after having completed the SUB BRIGHT adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". <p>(1) Receive a broadcast. (2) Select 2. V/C from the SERVICE MENU. (3) Select 5. CONT. (4) Set the initial setting value. (5) If the contrast is not best with the initial setting value, make fine adjustment until you get the best contrast. (6) Press the [DISPLAY] key twice to return to the normal screen.</p>
SUB COLOUR 1 adjustment	Remote control unit		[2. V/C] 6. COLOUR	<p>[Method of adjustment without measuring instrument]</p> <p>Notes:</p> <ul style="list-style-type: none"> • Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". <p>- PAL COLOUR - (1) Receive a PAL broadcast. (2) Select 2. V/C from the SERVICE MENU. (3) Select 6. COLOUR. (4) Set the initial setting value for PAL COLOUR. (5) If the colour is not best with the initial setting value, adjust until you get the best colour. (6) Press the [DISPLAY] key twice to return to the normal screen.</p> <p>- SECAM COLOUR - (1) Receive a SECAM broadcast. (2) Press the [COLOUR SYSTEM] key to select the SECAM colour system. (3) Adjust SECAM COLOUR in the same way as for "PAL COLOUR".</p> <p>- NTSC 3.58 COLOUR - (1) Receive a NTSC 3.58MHz broadcast. (2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. (3) Adjust NTSC 3.58 COLOUR in the same way as for "PAL COLOUR".</p> <p>- NTSC 4.43 COLOUR - When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.</p>

Item	Measuring instrument	Test point	Adjustment part	Description
SUB COLOUR 2 adjustment	Signal generator Oscilloscope Remote control unit	TP-47G TP-E [CRT SOCKET PWB]	[2. V/C] 6. COLOUR	<p>[Method of adjustment using measuring instrument]</p> <p>Notes:</p> <ul style="list-style-type: none"> Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. Set PICTURE MODE (VSM) to "BRIGHT". <p>- PAL COLOUR -</p> <ol style="list-style-type: none"> Receive a PAL colour bar signal (full field colour bar 75% white). Select 2. V/C from the SERVICE MENU. Select 6. COLOUR. Set the initial setting value of PAL COLOUR. Connect the oscilloscope between TP-47G and TP-E. Adjust PAL COLOUR to set the value (A) in the figure to +18V [AV-29VS24] or +16V [AV-29VX74/G, AV-2984V/E]. <p>- SECAM COLOUR -</p> <ol style="list-style-type: none"> Receive a SECAM colour bar signal (colour bar 75% white). Press the [COLOUR SYSTEM] key to select the SECAM colour system. Set the initial setting value of SECAM COLOUR. Adjust SECAM COLOUR to set the value (A) in the figure to +7V [AV-29VS24] or +2V [AV-29VX74/G, AV-2984V/E]. <p>- NTSC 3.58 COLOUR -</p> <ol style="list-style-type: none"> Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. Set the initial setting value of NTSC 3.58 COLOUR. Adjust NTSC 3.58 COLOUR to set the value (A) in the figure to +8V [AV-29VS24] or +15V [AV-29VX74/G, AV-2984V/E]. <p>- NTSC 4.43 COLOUR -</p> <p>When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.</p>
				
SUB TINT 1 adjustment	Signal generator Remote control unit		[2. V/C] 7. TINT	<p>[Method of adjustment without measuring instrument]</p> <p>Notes:</p> <ul style="list-style-type: none"> Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. Set PICTURE MODE (VSM) to "BRIGHT". <p>- NTSC 3.58 TINT -</p> <ol style="list-style-type: none"> Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. Select 2. V/C from the SERVICE MENU. Select 7. TINT. Set the initial setting value of NTSC 3.58. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. Press the [DISPLAY] key twice to return to the normal screen. <p>- NTSC 4.43 TINT -</p> <p>When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.</p>

Item	Measuring instrument	Test point	Adjustment part	Description
SUB TINT 2 adjustment	Signal generator Oscilloscope Remote control unit	TP-47G TP-E [CRT SOCKET PWB]	[2. V/C] 7. TINT	<p>[Method of adjustment using measuring instrument]</p> <p>Notes:</p> <ul style="list-style-type: none"> • Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. • Set PICTURE MODE (VSM) to “BRIGHT”. <p>- NTSC 3.58 TINT -</p> <ol style="list-style-type: none"> (1) Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). (2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. (3) Select 2. V/C from the SERVICE MENU. (4) Select 7. TINT. (5) Set the initial setting value of NTSC 3.58. (6) Connect the oscilloscope between TP-47G and TP-E. (7) Adjust NTSC 3.58 TINT to set the value (B) in the figure to +9V [AV-29VS24] or +13V [AV-29VX74/G, AV-2984V/E]. (8) Press the [DISPLAY] key twice to return to the normal screen. <p>- NTSC 4.43 TINT -</p> <p>When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.</p>



4.7.5 AUDIOSETTING

This submenu is for display only, no adjustment is required.

Function	Item	Setting value				
AUDIO	1. DC XO ADJ	FOH				
	2. NICAM LOWER ERR LIM	6FH				
	3. NICAM UPPER ERR LIM	BOH				
	4. A2 ID THR	00H				
Function	Item	100Hz	300Hz	1kHz	3kHz	8kHz
MENU EQUALIZER	DYNAMIC	+4	+3	-10	+3	+4
	MUSIC	+7	+2	+5	+2	+7
	NEWS	-6	+1	+6	+1	-6
	USER	0	0	0	0	0

4.7.6 DEFLECTION CIRCUIT ADJUSTMENTS

- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- When performing deflection circuit adjustment, adjusts PAL signal (fv: 50 Hz) in 4:3 mode and 16:9 mode respectively, and adjust the NTSC signal (fv: 60 Hz) similarly.

Note:

Proceed to the following adjustment after having completed the adjustments of SUB BRIGHT and SUB PICTURE.

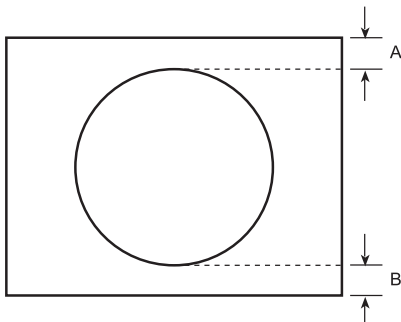
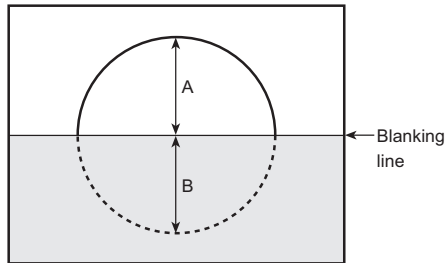
■ 4. DEF

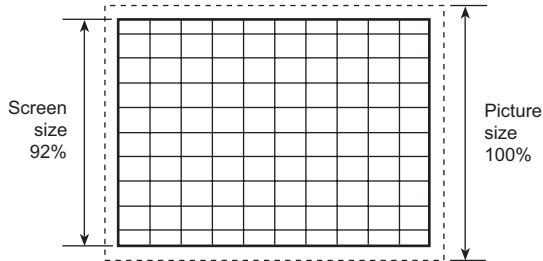
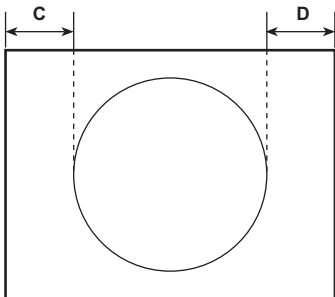
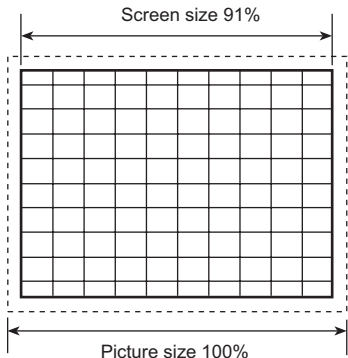
Adjustment item	Variable range	Initial setting value			
		4:3		COMPRESS (16:9)	
		50Hz	60Hz	50Hz	60Hz
1. V-SHIFT	-32 ~ +31	0*	0*	0*	0*
2. V-SLOPE	-32 ~ +31	0*	0*	0*	0*
3. V-SIZE	-32 ~ +31	+15*	0*	-4*	-2*
4. H-CENT	-32 ~ +31	+35*	0*	0*	0*
5. H-SIZE	-32 ~ +31	+45*	0*	0*	0*
6. TRAPEZ	-32 ~ +31	0*	0*	0*	0*
7. EW-PIN	-32 ~ +31	-12*	0*	0*	0*
8. COR-UP	-32 ~ +31	0*	0*	0*	0*
9. COR-LO	-32 ~ +31	0*	0*	0*	0*
10. ANGLE	-32 ~ +31	0*	0*	0*	0*
11. BOW	-32 ~ +31	0*	0*	0*	0*
12. V-S.CR	-32 ~ +31	0*	0*	0*	0*
13. V-LIN	-32 ~ +31	0*	0*	0*	0*
14. V-ZOOM	-32 ~ +31	+25	0	-23*	+3*
15. V-SCROLL	-32 ~ +31	+32	0	0	0

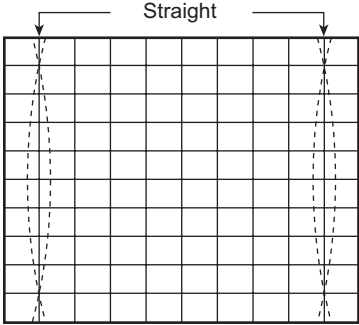
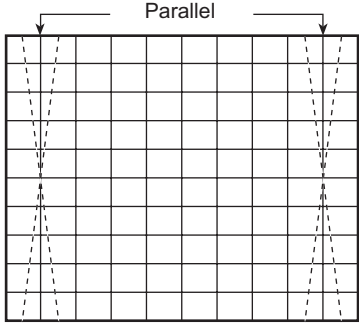
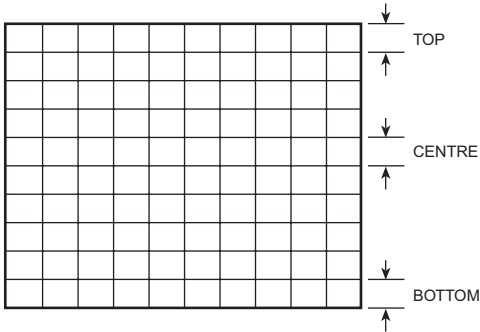
NOTE: The value with an asterisk * is variable for adjustment.

■ COMPRESS : OFF (4:3)

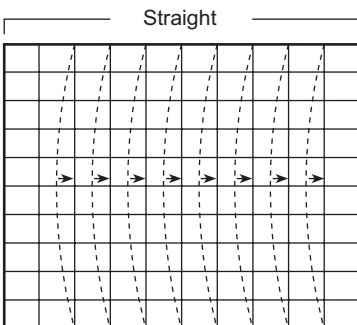
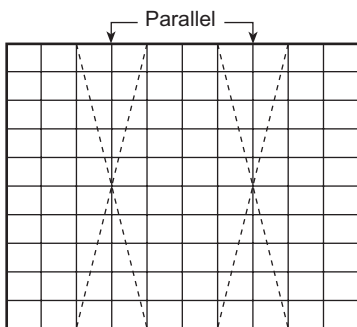
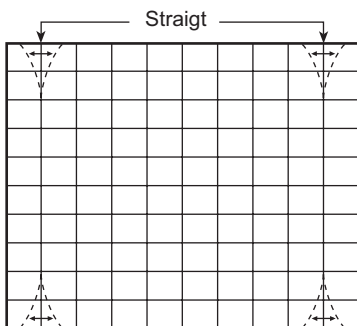
Item	Measuring instrument	Test point	Adjustment part	Description
V. SLOPE adjustment	Signal generator		[4. DEF] 2. V-SLOPE	- PAL V. SLOPE - (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select 4. DEF from the SERVICE MENU. (3) Select 2. V-SLOPE . (4) Set the initial setting value of 2. V-SLOPE . (5) Adjust 2. V-SLOPE to make " A = B ". (6) Press the [DISPLAY] key to return to SERVICE MENU screen. - NTSC V. SLOPE - (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V- SLOPE in the same way as for "PAL V-SLOPE".
	Remote control unit			
V. POSITION adjustment	Signal generator		[4. DEF] 1. V-SHIFT	- PAL V. POSITION - (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select 1. V-SHIFT . (3) Set the initial setting value of 1. V-SHIFT . (4) Adjust 1. V-SHIFT to make " A = B ". - NTSC V. POSITION - (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. POSITION in the same way as for "PAL V. POSITION".
	Remote control unit			



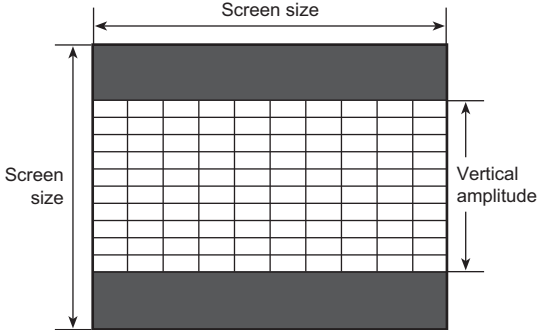
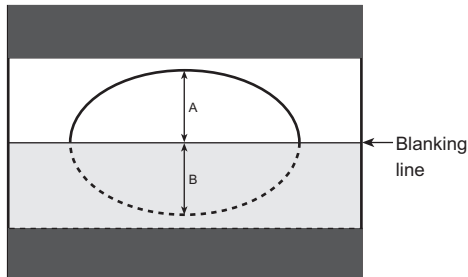
Item	Measuring instrument	Test point	Adjustment part	Description
V. HEIGHT adjustment	Signal generator		[4. DEF] 3. V-SIZE 14. V-ZOOM	- PAL V. HEIGHT - (1) Receive a PAL crosshatch signal. (2) Select 3. V-SIZE . (3) Set the initial setting value of 3. V-SIZE . (4) Select 14. V-ZOOM . (5) Set the initial setting value of 14. V-ZOOM . (6) Adjust 14. V-ZOOM to make the vertical screen size to 92% of the picture size. - NTSC V. HEIGHT - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC V. HEIGHT in the same way as for "PAL V. HEIGHT".
	Remote control unit			
				
H. POSITION adjustment	Signal generator		[4. DEF] 4. H-CENT	- PAL H. POSITION - (1) Receive a PAL circle pattern signal. (2) Select 4. H-CENT . (3) Set the initial setting value of 4. H-CENT . (4) Adjust 4. H-CENT to make " C = D ". - NTSC H. POSITION - (1) Receive a NTSC circle pattern signal. (2) Make similar adjustment of NTSC H. POSITION in the same way as for "PAL H. POSITION".
	Remote control unit			
				
H. WIDTH adjustment	Signal generator		[4. DEF] 5. H-SIZE	- PAL H. WIDTH - (1) Receive a PAL crosshatch signal. (2) Select 5. H-SIZE . (3) Set the initial setting value of 5. H-SIZE . (4) Adjust 5. H-SIZE to make the horizontal screen size to 91% of the picture size. - NTSC H. WIDTH - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC H. WIDTH in the same way as for "PAL H. WIDTH".
	Remote control unit			
				

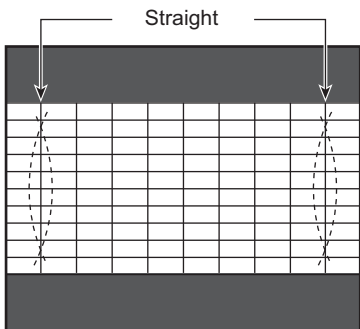
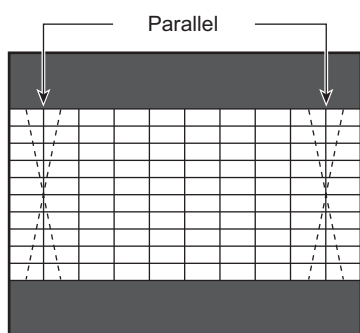
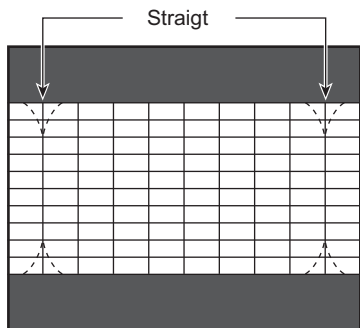
Item	Measuring instrument	Test point	Adjustment part	Description
SIDE PIN adjustment	Signal generator		[4. DEF] 7. EW-PIN	- PAL SIDE PIN - (1) Receive a PAL crosshatch signal. (2) Select 7. EW-PIN . (3) Set the initial setting value of 7. EW-PIN . (4) Adjust 7. EW-PIN so that the first vertical lines at the left and right edges on the screen are straight. - NTSC SIDE PIN - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC SIDE PIN in the same way as for "PAL SIDE PIN".
	Remote control unit			
				
TRAPEZIUM adjustment	Signal generator		[4.DEF] 6. TRAPEZ	- PAL TRAPEZIUM - (1) Receive a PAL crosshatch signal. (2) Select 6. TRAPEZ . (3) Set the initial setting value of 6. TRAPEZ . (4) Adjust 6. TRAPEZ so that the vertical lines at the left and right edges on the screen are in parallel. - NTSC TRAPEZIUM - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC TRAPEZIUM in the same way as for "PAL TRAPEZIUM".
	Remote control unit			
				
V. LINEARITY adjustment	Signal generator		[4. DEF] 12. V-S.CR 13. V-LIN	- PAL V. LINEARITY - (1) Receive a PAL crosshatch signal. (2) Select 12. V-S.CR . (3) Set the initial setting value of 12. V-S.CR . (4) Select 13. V-LIN . (5) Set the initial setting value of 13. V-LIN . (6) Adjust 12. V-S.CR and 13. V-LIN so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform. - NTSC V. LINEARITY - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC V-S. CR in the same way as for "PAL V-S. CR".
	Remote control unit			
				

Item	Measuring instrument	Test point	Adjustment part	Description
CORNER PIN adjustment	Signal generator		[4. DEF] 8. COR-UP 9. COR-LO	- PAL CORNER PIN - (1) Receive a PAL crosshatch signal. (2) Select 8. COR-UP . (3) Set the initial setting value of 8. COR-UP . (4) Select 9. COR-LO . (5) Set the initial setting value of 9. COR-LO . (6) Adjust 8. COR-UP and 9. COR-LO so that the vertical lines at the four corners on the screen are straight. - NTSC CORNER PIN - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC CORNER in the same way as for "PAL CORNER".
	Remote control unit			
H. PARALLEL adjustment	Signal generator		[4. DEF] 10. ANGLE	- PAL H. PARALLEL - (1) Receive a PAL crosshatch signal. (2) Select 10. ANGLE . (3) Set the initial setting value of 10. ANGLE . (4) Adjust 10. ANGLE to optimize the trapezium distortion at the centre of the screen. - NTSC H. PARALLEL - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC H. PARALLEL in the same way as for "PAL H. PARALLEL".
	Remote control unit			
H. BOW adjustment	Signal generator		[4. DEF] 11. BOW	- PAL H. BOW - (1) Receive a PAL crosshatch signal. (2) Select 11. BOW . (3) Set the initial setting value of 11. BOW . (4) Adjust 11. BOW to optimize the horizontal arc distortion. - NTSC H. BOW - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC H. BOW in the same way as for "PAL H. BOW". (3) Press the [DISPLAY] key twice to return to the normal screen.
	Remote control unit			

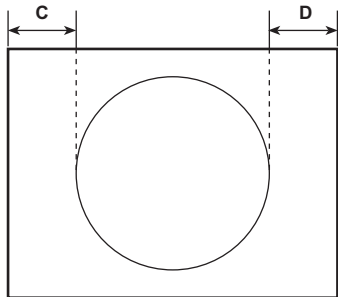


■ COMPRESS : ON (16:9)

Item	Measuring instrument	Test point	Adjustment part	Description
V. HEIGHT adjustment	Signal generator		[4.DEF] 14. V. ZOOM 3. V-SIZE	- PAL V. HEIGHT - (1) Receive a PAL crosshatch signal of vertical frequency 50Hz. (2) Press the [MENU] key and select PICTURE . (3) Select PICTURE FEATURES . (4) Select COMPRESS (16 : 9) and set COMPRESS to ON. (5) Select 4. DEF from the SERVICE MENU. (6) Set the initial setting value of 14. V. ZOOM . (7) Select 3. V-SIZE . (8) Set the initial setting value of 3. V-SIZE . (9) Adjust 3. V-SIZE to set the vertical amplitude of the image to 305mm. - NTSC V. HEIGHT - (1) Receive a NTSC crosshatch signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. HEIGHT in the same way as for "PAL V. HEIGHT".
	Remote control unit			
				
V. SLOPE adjustment	Signal generator		[4.DEF] 2. V-SLOPE	- PAL V. SLOPE - (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select 4. DEF from the SERVICE MENU. (3) Select 2. V-SLOPE . (4) Set the initial setting value of 2. V-SLOPE . (5) Adjust 2. V-SLOPE to make " A = B ". (6) Press the [DISPLAY] key to return to SERVICE MENU screen. - NTSC V. SLOPE - (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. SLOPE in the same way as for "PAL V. SLOPE".
	Remote control unit			
				

Item	Measuring instrument	Test point	Adjustment part	Description
SIDE PIN adjustment	Signal generator		[4. DEF] 7. EW-PIN	- PAL SIDE PIN - (1) Receive a PAL crosshatch signal. (2) Select 7. EW-PIN . (3) Set the initial setting value of 7. EW-PIN . (4) Adjust 7. EW-PIN so that the first vertical lines at the left and right edges on the screen are straight. - NTSC SIDE PIN - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC SIDE PIN in the same way as for "PAL SIDE PIN".
	Remote control unit			
				
TRAPEZIUM adjustment	Signal generator		[4. DEF] 6. TRAPEZ	- PAL TRAPEZIUM PIN - (1) Receive a PAL crosshatch signal. (2) Select 6. TRAPEZ . (3) Set the initial setting value of 6. TRAPEZ . (4) Adjust 6. TRAPEZ so that the vertical lines at the left and right edges on the screen are in parallel. - NTSC TRAPEZIUM PIN - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC TRAPEZIUM in the same way as for "PAL TRAPEZIUM".
	Remote control unit			
				
CORNER PIN adjustment	Signal generator		[4. DEF] 8. COR-UP 9. CO-LO	- PAL CORNER PIN - (1) Receive a PAL crosshatch signal. (2) Select 8. COR-UP . (3) Set the initial setting value of 8. COR-UP . (4) Select 9. COR-LO . (5) Set the initial setting value of 9. COR-LO . (6) Adjust 8. COR-UP and 9. COR-LO so that the vertical lines at the four corners on the screen are straight. - NTSC CORNER PIN - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC CORNER in the same way as for "PAL CORNER". (3) Press the [DISPLAY] key twice to return to the normal screen.
	Remote control unit			
				

■ VIDEO - 2 SET : COMPONENT

Item	Measuring instrument	Test point	Adjustment part	Description
H. POSITION adjustment	Signal generator Remote control unit		[4. DEF] 4. H-CENT	(1) Receive a PAL circle pattern signal to VIDEO-2 component terminal. (2) Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. (3) Select 4. DEF from the SERVICE MENU. (4) Select 4. H-CENT . (5) Set the initial setting value of 4. H-CENT . (6) Adjust 4. H-CENT to make " C=D ". (7) Press the [DISPLAY] key twice to return to the normal screen.
				

4.7.7 VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description																																								
VSM PRESET setting	Remote control unit		[5. VSM W/B] 1. BRIGHT 2. CONT 3. COLOUR 4. SHARP 5. HUE 1. R-DRIVE 2. G-DRIVE 3. B-DRIVE	(1) Select 5. VSM W/B from the SERVICE MENU. (2) Select BRIGHT with the MENU [OK] key. (3) Set the value of 1. BRIGHT ~ 5. HUE to the values shown in the table. (4) Respectively select the VSM PRESET mode for SOFT and STANDARD. (5) Select COOL with the MENU [OK] key. (6) Set the values of 1. R-DRIVE ~ 3. B-DRIVE to the value shown in the table. (7) Select the W/B preset for WARM and NORMAL, respectively. (8) Press the [DISPLAY] key twice to return to the normal screen.																																								
<div>SUB MENU 5. VSM W/B</div> <div><div>VSM PRESET BRIGHT</div><div>1. BRIGHT ***</div></div>				<div>[Setting Values for SUB 5. VSM W/B]</div> <table><tr><th><div>VSM preset</div><div>Setting item</div></th><th>BRIGHT</th><th>STANDARD</th><th>SOFT</th></tr><tr><td>1. BRIGHT</td><td>0</td><td>0</td><td>+2</td></tr><tr><td>2. CONT</td><td>+15</td><td>0</td><td>-3</td></tr><tr><td>3. COLOUR</td><td>0</td><td>0</td><td>0</td></tr><tr><td>4. SHARP</td><td>0</td><td>0</td><td>-10</td></tr><tr><td>5. HUE</td><td>0</td><td>0</td><td>0</td></tr></table> <table><tr><th><div>W/B preset</div><div>Setting item</div></th><th>COOL</th><th>WARM</th><th>NOMAL</th></tr><tr><td>1. R-DRIVE</td><td>0</td><td>+10</td><td>+2</td></tr><tr><td>2. G-DRIVE</td><td>0</td><td>-4</td><td>0</td></tr><tr><td>3. B-DRIVE</td><td>0</td><td>-12</td><td>-10</td></tr></table>	<div>VSM preset</div> <div>Setting item</div>	BRIGHT	STANDARD	SOFT	1. BRIGHT	0	0	+2	2. CONT	+15	0	-3	3. COLOUR	0	0	0	4. SHARP	0	0	-10	5. HUE	0	0	0	<div>W/B preset</div> <div>Setting item</div>	COOL	WARM	NOMAL	1. R-DRIVE	0	+10	+2	2. G-DRIVE	0	-4	0	3. B-DRIVE	0	-12	-10
<div>VSM preset</div> <div>Setting item</div>	BRIGHT	STANDARD	SOFT																																									
1. BRIGHT	0	0	+2																																									
2. CONT	+15	0	-3																																									
3. COLOUR	0	0	0																																									
4. SHARP	0	0	-10																																									
5. HUE	0	0	0																																									
<div>W/B preset</div> <div>Setting item</div>	COOL	WARM	NOMAL																																									
1. R-DRIVE	0	+10	+2																																									
2. G-DRIVE	0	-4	0																																									
3. B-DRIVE	0	-12	-10																																									

4.7.8 PURITY AND CONVERGENCE [AV-29VS24]

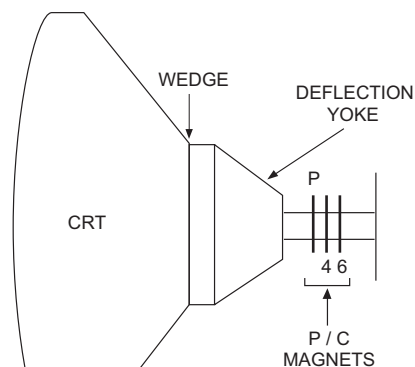
■ PURITY ADJUSTMENT

Note:

The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is affected by the FOCUS adjustment.)

If CONVERGENCE is found deviated after the FOCUS adjustment, the PURITY adjustment should be checked and reset, if required.

- (1) Demagnetize the CRT with the demagnetizer.
- (2) Loosen the retainer screw of the deflection yoke.
- (3) Remove the wedges.
- (4) Input a green raster signal from the signal generator, and turn the screen to green raster.
- (5) Move the deflection yoke backward.
- (6) Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig. 2)
- (7) Adjust the gap between two lugs so that the GREEN RASTER will come into the centre of the screen. (Fig. 3)
- (8) Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.
- (9) Insert the wedge to the top side of the deflection yoke so that it will not move.
- (10) Input a crosshatch signal.
- (11) Verify that the screen is horizontal.
- (12) Input red and blue raster signals, and make sure that the purity is properly adjusted.



• P/C MAGNETS

P : PURITY MAGNET
4 : 4 POLES (convergence magnets)
6 : 6 POLES (convergence magnets)

Fig. 1

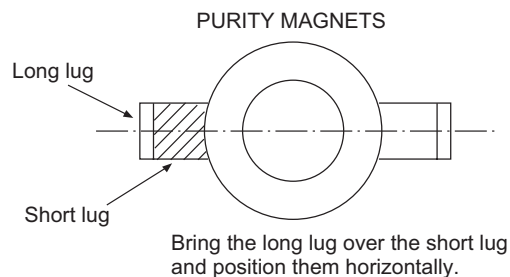


Fig. 2

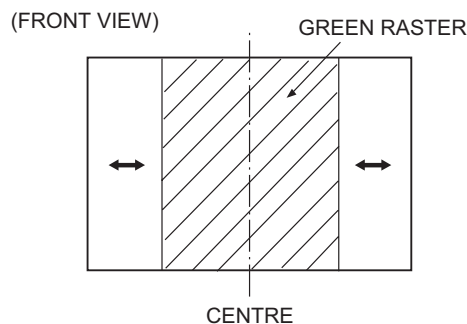


Fig. 3

■ STATIC CONVERGENCE ADJUSTMENT

- (1) Input a crosshatch signal.
- (2) Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen (Fig. 4) and turn them to magenta (red/blue).
- (3) Using 6-pole convergence magnets, overlap the magenta (red/blue) and green lines in the centre of the screen and turn them to white.
- (4) Repeat (2) and (3) above, and make the best convergence.

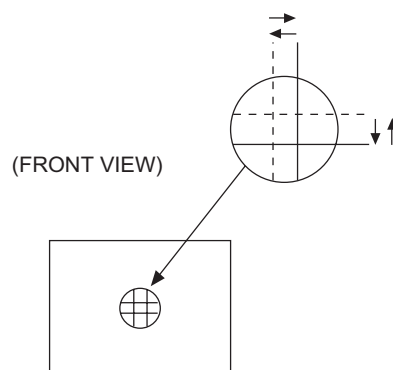


Fig. 4

■ DYNAMIC CONVERGENCE ADJUSTMENT

- (1) Move the deflection yoke up and down and overlap the lines in the periphery. (Fig. 5)
- (2) Move the deflection yoke from the left to the right and overlap the lines in the periphery. (Fig. 6)
- (3) Repeat (1) and (2) above, and make the best convergence.
- (4) Adjust XV by XV coil. (Fig.7)

NOTES:

- After the adjustment, fix the wedge at the original position.
- Fasten the retainer screw of the deflection yoke.
- Fix the P/C magnets with glue.

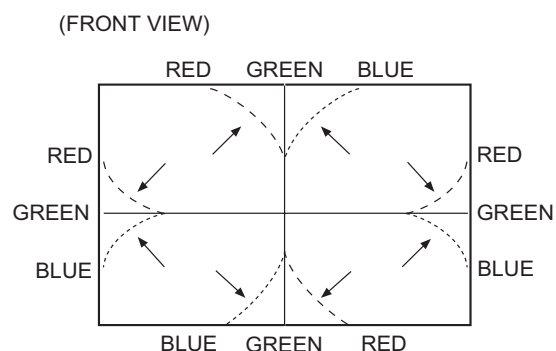


Fig. 5

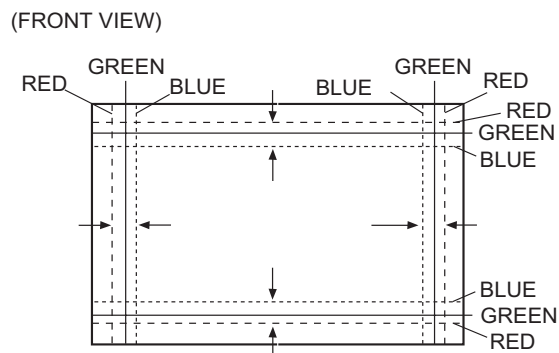


Fig. 6

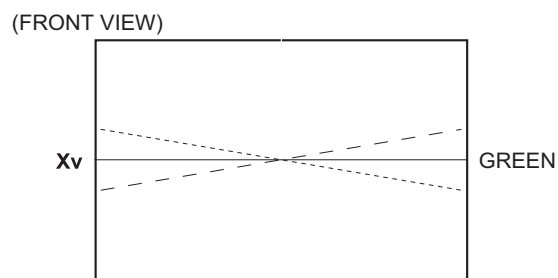


Fig. 7