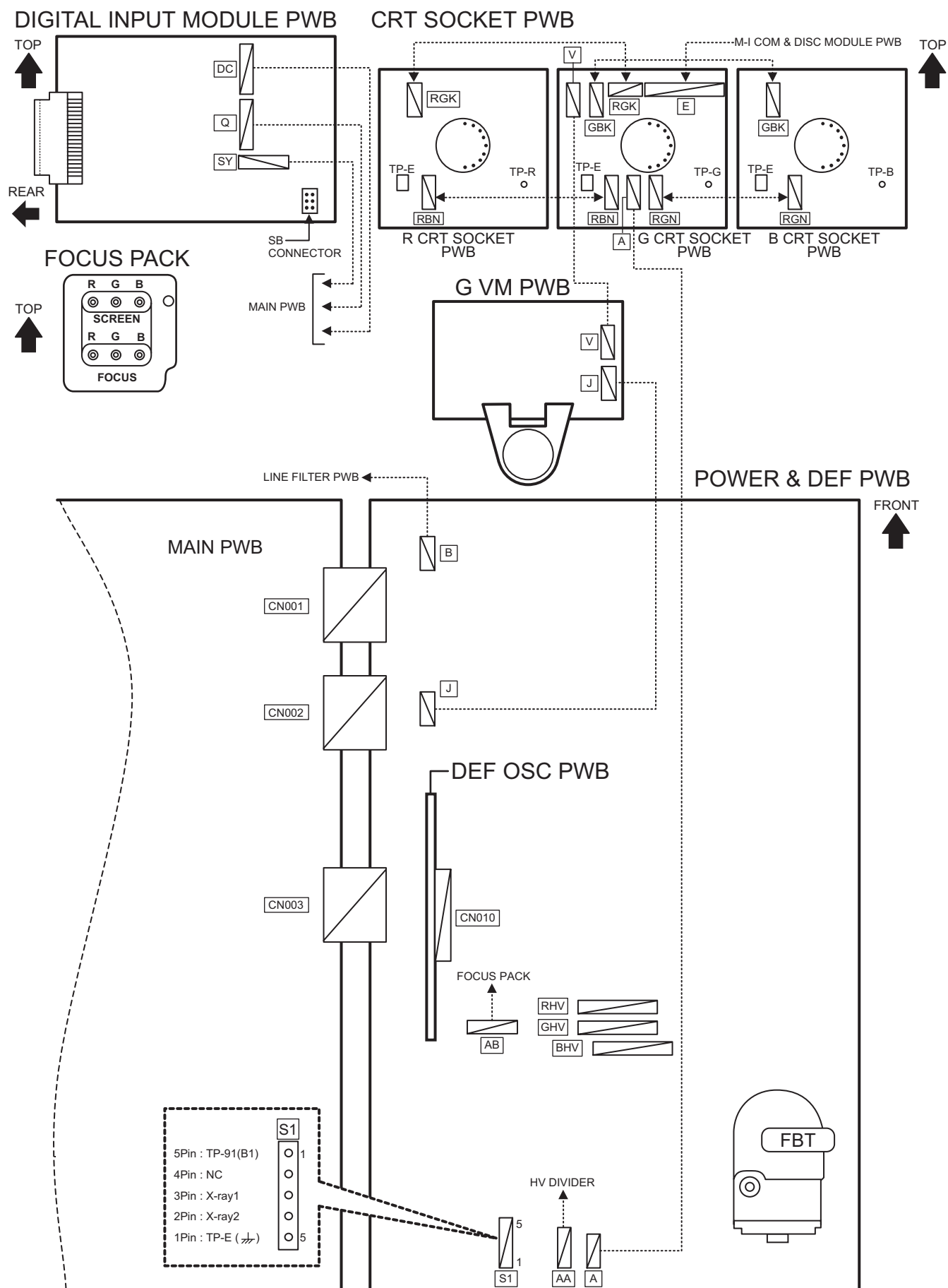
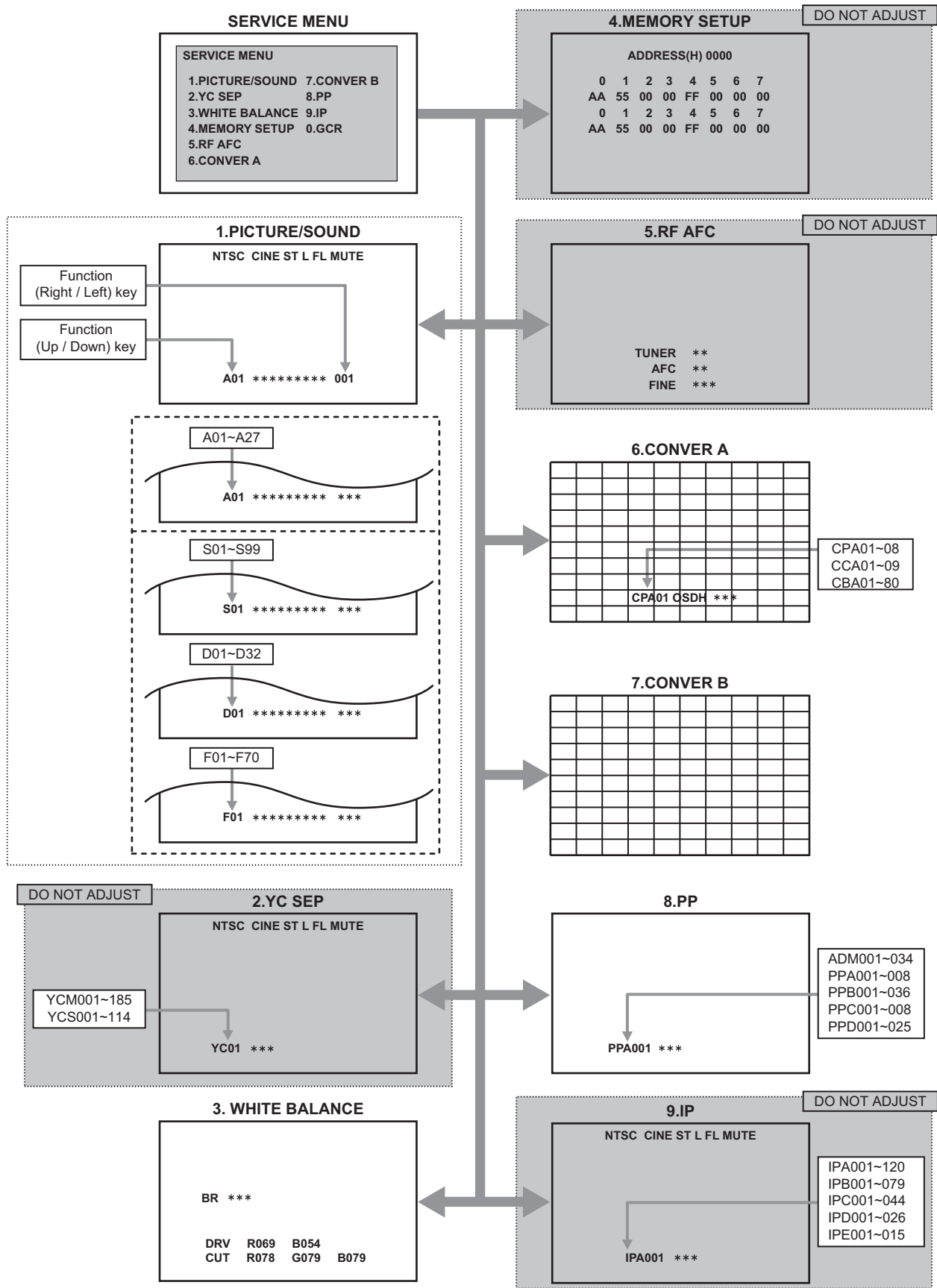


3.5 ADJUSTMENT LOCATION (2/2)



3.6 BASIC OPERATION OF SERVICE MENU



3.6.1 TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

3.6.2 SERVICE MENU ITEMS

In general, basic setting (adjustments) items or verifications are performed in the SERVICE MENU.

1. PICTURE / SOUND This sets the setting values of the VIDEO, AUDIO and DEFLECTION circuits.
2. YC SEP This is used when the YC separation circuit is adjusted. [Do not adjust]
3. WHITE BALANCE This sets the setting values of the WHITE BALANCE.
4. MEMORY SETUP This sets the setting values of the MEMORY ADDRESS. [Do not adjust]
5. RF AFC This is used when the IF VCO is adjusted. [Do not adjust]
6. CONVER A This is used when the CONVERGENCE is adjusted.
7. CONVER B This is used when the CONVERGENCE is adjusted.
8. PP This sets the setting value of the output of MULTI-PICTURE circuit.
9. IP This sets the setting value of the DIST circuit. [Do not adjust]
0. GCR This model do not built-in.

3.6.3 BASIC OPERATIONS OF THE SERVICE MENU

(1) How to enter the SERVICE MENU.

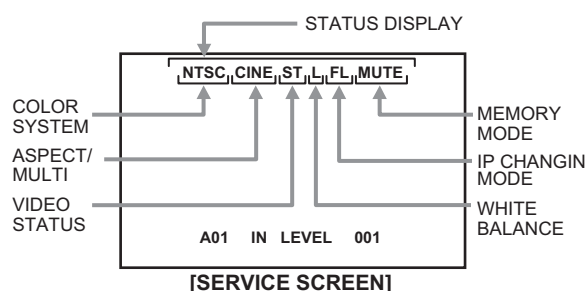
Press [SLEEP TIMER] key and, while the indication of "SLEEP TIMER 0 MIN." is being displayed, press [DISPLAY] key and [VIDEO STATUS] key on the remote control unit simultaneously to enter the SERVICE MENU screen as shown in the fig.1.

(2) Releasing SERVICE MENU

After returning to the SERVICE MENU upon completion of the setting work, press the BACK key again.

3.6.4 DESCRIPTION OF STATUS DISPLAY

The status display on the upper part of the SERVICE MENU screen is common (to all models).



(1) COLOR SYSTEM

- NTSC : 480i (COMPOSITE/S input)
- DVD : 480i (COMPONENT)
- ED : 480p
- HD : 1080i
- 720 : 720p
- HED1 : HDCP 480p SIZE1
- HED2 : HDCP 480p SIZE2
- HHD : HDCP 1080i
- H750 : HDCP 720p

(2) ASPECT / MULTI

- ONE SCREEN
- FULL : FULL
- PANO : PANORAMA
- CINE : CINEMA
- REGU : REGULAR

MULTI SCREEN

- M1 : One screen (for adjustment)
- M2-1 : SPLIT (4 : 3)
- M2-2 : SPLIT (16 : 9)
- M4 : POP
- M12 : INDEX

(3) VIDEO STATUS

- ST : STANDARD
- DA : DYNAMIC
- TH : THEATER
- GA : GAME

(4) WHITE BALANCE

- H : HIGH
- L : LOW

(5) IP CHANGING MODE

- FL : FRAME
- L1 : LINE
- 23 : COMPULSORY NATURAL CINEMA IN

(6) MEMORY MODE

- MUTE : Press [MUTING] key
- DIR : Change data then memory at the same time.

3.6.5 SERVICE MENU SETTING

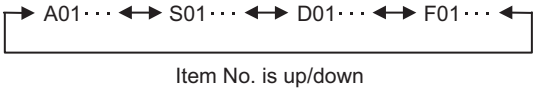
1. PICTURE/SOUND

AUDIO, VIDEO, DEFLECTION data adjustment.

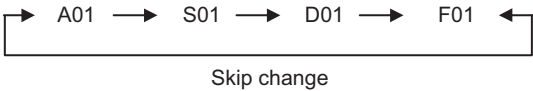
1.SETTING ITEM No.

- A : AUDIO
- S : SIGNAL
- D : DEFLECTION
- F : FACTORY SETTING

- Press [CH+] / [CH-] key



- Press [SLEEP TIMER] key



2.SETTING ITEM NAME

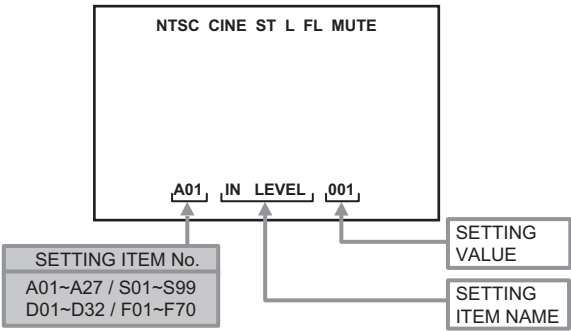
Describe setting item name

3.SETTING VALUE

Set the setting value.

- Press [VOL+] / [VOL-] key
Set the setting value.
- Press [MUTING] key
Memorize the data.

1.PICTURE/SOUND

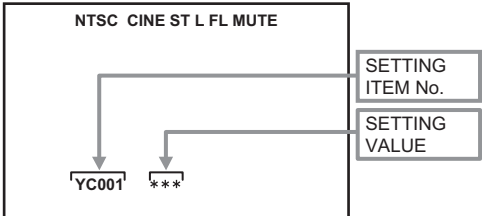


2. YC SEP

YC separation circuit setting

[Do not adjust]

2.YC SEP



3. WHITE BALANCE

Adjustment of LOW LIGHT / HIGH LIGHT

1.SELECT ITEM

- Press [CH+] / [CH-] key

2.SETTING VALUE

BRIGHT

- Press [VOL+] / [VOL-] key

DRIVE

[2] key : DRIVE R is up

[5] key : DRIVE R is down

[3] key : DRIVE B is up

[6] key : DRIVE B is down

CUTOFF

[8] key : CUTOFF R is up

[0] key : CUTOFF R is down

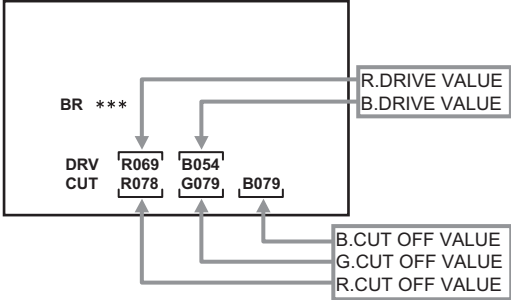
[7] key : CUTOFF G is up

[100+] key : CUTOFF G is down

[9] key : CUTOFF B is up

[RETURN] key : CUTOFF B is down

3. WHITE BALANCE



4. MEMORY SETUP

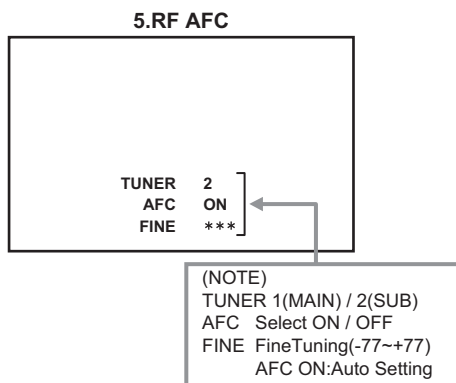
[Do not adjust]

4.MEMORY SETUP

ADDRESS(H) 0000							
0	1	2	3	4	5	6	7
AA	55	00	00	FF	00	00	00
0	1	2	3	4	5	6	7
AA	55	00	00	FF	00	00	00

5. RF AFC

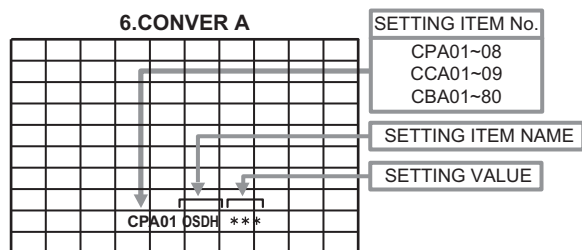
[Do not adjust]



6. CONVER A

Setting the CONVERGENCE PHASE adjustment

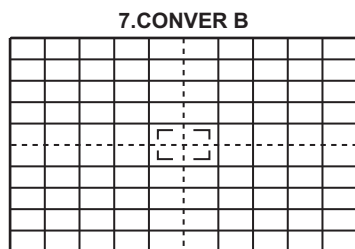
- Setting for 6.CONVER A is described in the CONVERGENCE adjustment page.



7. CONVER B

Setting the CONVERGENCE POINT (fine)

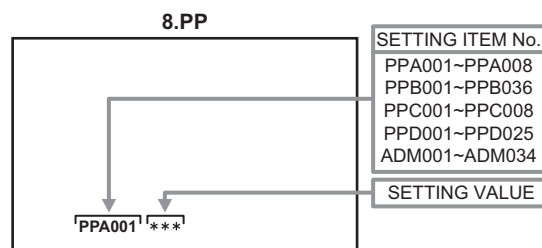
- Setting for 7.CONVER B is described in the CONVERGENCE adjustment page.



8. PP

MULTI-PICTURE circuit data setting

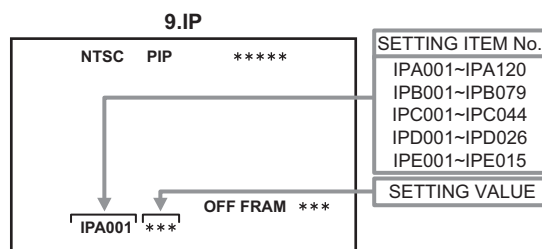
- Do not adjust (except ADM012~ADM014 : Refer to VIDEO ADJUSTMENT page)



9. IP

DIST circuit data setting

[Do not adjust]



3.7 INITIAL SETTING VALUE OF SERVICE MENU

- (1) Adjustment of the SERVICE MENU is made on the basis of the initial setting values; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
- (2) Do not change the initial setting values of the setting items NOT LISTED IN ADJUSTMENT.
- (3) The (*1 or *2) marked items in following table, it is NO REQUIREMENT for adjustment. If values had change by the missing, set the initial values in the following table.
- (4) "----" is not adjusted. Setting value is not displayed

CAUTION:

Never change the initial setting value any adjustments **except** for those that are designated in the adjustment procedures.
In case where you have made undesignated adjustments by mistake, never press the [MUTING] key on the remote control unit.
Whenever you had not pressed the [MUTING] key, you would be able to recover the initial value by switching the [POWER] key.

3.7.1 [1. PICTURE / SOUND]

AUDIO SYSTEM

Item No.	Item name	Variable range	Initial setting value	
			AV-48WP74	AV-56WP74
A01	IN LEVEL	000~015	009	009
A02	LOW SEP	000~063	035	035
A03	HI SEP	000~063	020	020
A04	BBE BASS	-128~+127	+010	+004
A05	BBE TRE	-128~+127	000	+004
A06	SURROUND	000~015	000	000
A07	BASS OFS	-128~+127	-017	-007
A08	TRE OFS	-128~+127	-011	-005
A09	AHS MVE	-128~+127	000	000
A10	AHS MSC	-128~+127	000	000
A11	(Not display)	000 / 001	000	000
A12	(Not display)	000 / 001	000	000
A13	(Not display)	000 / 001	000	000
A14	(Not display)	000 / 001	000	000
A15	(Not display)	000 / 001	000	000
A16	(Not display)	000 / 001	000	000
A17	(Not display)	000 / 001	000	000
A18	(Not display)	000 / 001	000	000
A19	(Not display)	000 / 001	000	000
A20	(Not display)	000 / 001	000	000
A21	(Not display)	000 / 001	000	000
A22	(Not display)	000 / 001	000	000
A23	(Not display)	000 / 001	000	000
A24	(Not display)	000 / 001	000	000
A25	(Not display)	000 / 001	000	000
A26	(Not display)	000 / 001	000	000
A27	(Not display)	000 / 001	000	000

DEFLECTION SYSTEM

Item No.	Item name	Variable range	Initial setting value	
			SINGLE PICTURE (FULL)	SPRIT / POP / MULTI
D01	V. SIZE	000~127	053	053
D02	EW	000~063	013	013
D03	H. SIZE	000~127	045	045
D04	V. SCORE	000~063	040	040
D05	V. LINE	000~031	040	040
D06	V. CENT	000~127	024	024
D07	EW.TRAP	000~127	028	028
D08	BOT.CORN	000~031	008	008
D09	TOP.CORN	000~031	008	008
D10	V. EHT	000~007	005	005
D11	H. EHT	000~007	003	003
D12	<i>(Not display)</i>	000~031	006	006
D13	<i>(Not display)</i>	000~031	000	000
D14	H. CENTER	000~255	091	091
D15	H. FREQ	000~255	182	182
D16	<i>(Not display)</i>	000 / 001	000	000
D17	<i>(Not display)</i>	000~015	000	000
D18	<i>(Not display)</i>	000~015	000	000
D19	<i>(Not display)</i>	000~015	000	000
D20	<i>(Not display)</i>	000~015	000	000
D21	<i>(Not display)</i>	000~015	000	000
D22	<i>(Not display)</i>	000 / 001	000	000
D23	<i>(Not display)</i>	000~031	000	000
D24	<i>(Not display)</i>	000~031	000	000
D25	<i>(Not display)</i>	000~015	000	000
D26	<i>(Not display)</i>	000~015	000	000
D27	<i>(Not display)</i>	000~127	000	000
D28	<i>(Not display)</i>	000~003	000	000
D29	<i>(Not display)</i>	000 / 001	000	000
D30	<i>(Not display)</i>	000 / 001	000	000
D31	<i>(Not display)</i>	000 / 001	000	000
D32	<i>(Not display)</i>	000 / 001	000	000

VIDEO SYSTEM
(NTSC / 480i / 480p)

Item No.	Item name	Variable range	NTSC		480i		480p	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S01	COLOR	000~255	095	087	081	072	074	068
S02	TINT	000~255	062	050	066	062	063	063

(720p / 1080i / HDCP)

Item No.	Item name	Variable range	720p / 1080i		HDCP			
			STANDARD	THEATER	480p		1080i / 720p	
					STANDARD	THEATER	STANDARD	THEATER
S01	COLOR	000~255	066	064	---	---	---	---
S02	TINT	000~255	064	058	---	---	---	---

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC		480i	
			STANDARD	THEATER	STANDARD	THEATER
S03	BRIGHT	000~255	133	121	130	129
S04	CONTRAST	000~127	052	045	065	046

(480p / 720p / 1080i / HDCP)

Item No.	Item name	Variable range	480p / 720p / 1080i		HDCP	
			STANDARD	THEATER	STANDARD	THEATER
S03	BRIGHT	000~255	130	130	---	---
S04	CONTRAST	000~127	065	044	---	---

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC		480i	
			STANDARD	THEATER	STANDARD	THEATER
S05	0 MTX SW	000~003	000	000	000	000
S06	INPUT SW	000~003	001	001	001	001
S07	B-Y	000~063	013	024	013	024
S08	R-Y	000~015	007	000	007	000
S09	G-Y MATRI	000~003	001	003	001	003

(480p / 720p / 1080i / HDCP)

Item No.	Item name	Variable range	480p / HDCP480p		1080i / 720p / HDCP1080i / HDCP720p	
			STANDARD	THEATER	STANDARD	THEATER
S05	0 MTX SW	000~003	000	000	000	000
S06	INPUT SW	000~003	001	001	000	000
S07	B-Y	000~063	016	016	022	027
S08	R-Y	000~015	007	002	004	003
S09	G-Y MATRI	000~003	001	003	002	002

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC				480i			
			STANDARD		THEATER		STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
S10	DRIVE R	000~255	073	---	---	---	---	074	---	---
S11	<i>(Not display)</i>	-128~+127	---	004	010	006	005	---	002	005
S12	DRIVE B	000~255	060	---	---	---	---	058	---	---
S13	<i>(Not display)</i>	-128~+127	---	004	-018	-007	005	---	-010	-018

(480p / 720p / 1080i)

Item No.	Item name	Variable range	480p				720p / 1080i			
			STANDARD		THEATER		STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
S10	DRIVE R	000~255	---	---	---	---	---	074	---	---
S11	<i>(Not display)</i>	-128~+127	003	004	003	001	005	---	005	008
S12	DRIVE B	000~255	---	---	---	---	---	058	---	---
S13	<i>(Not display)</i>	-128~+127	007	004	000	-010	005	---	001	-009

(HDCP)

Item No.	Item name	Variable range	HDCP			
			STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW
S10	DRIVE R	000~255	---	---	---	---
S11	<i>(Not display)</i>	-128~+127	005	0	005	008
S12	DRIVE B	000~255	---	---	---	---
S13	<i>(Not display)</i>	-128~+127	005	0	001	-009

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC		480i	
			STANDARD	THEATER	STANDARD	THEATER
S14	CUTOFF R	000~255	158	---	164	---
S15	<i>(Not display)</i>	-128~+127	---	-004	---	001
S16	CUTOFF G	000~255	119	---	119	---
S17	<i>(Not display)</i>	-128~+127	---	0	---	000
S18	CUTOFF B	000~255	185	---	190	---
S19	<i>(Not display)</i>	-128~+127	---	-004	---	000
S20	CUTOFF SW R	000~003	001	---	001	---
S21	CUTOFF SW G	000~003	001	---	001	---
S22	CUTOFF SW B	000~003	001	---	001	---

(480p / 720p / 1080i)

Item No.	Item name	Variable range	480p / 720p / 1080i		HDCP	
			STANDARD	THEATER	STANDARD	THEATER
S14	CUTOF R	000~255	165	---	---	---
S15	<i>(Not display)</i>	-128~+127	---	-008	000	-006
S16	CUTOF G	000~255	119	---	---	---
S17	<i>(Not display)</i>	-128~+127	---	000	000	000
S18	CUTOF B	000~255	190	---	---	---
S19	<i>(Not display)</i>	-128~+127	---	-008	000	-011
S20	CUTOF SW R	000~003	001	---	---	---
S21	CUTOF SW G	000~003	001	---	---	---
S22	CUTOF SW B	000~003	001	---	---	---

(NTSC / 480i / OTHERS)

Item No.	Item name	Variable range	NTSC		480i		OTHERS SIGNAL	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S23	DC CTL	000~255	000	255	000	255	000	255

(NTSC / 480i / OTHERS SIGNAL)

Item No.	Item name	Variable range	NTSC	480i	OTHERS SIGNAL
S24	RGBLIMT	000~015	000	000	000
S25	BL STRT	000~015	015	015	015
S26	BL GAIN	000~015	008	008	008
S27	YGM LVL	000~015	000	000	000
S28	YGM GAIN	000~015	015	015	015
S29	YWD START	000~015	002	000	000
S30	YWD GAIN	000~015	005	002	003

(NTSC / 480i / 480p)

Item No.	Item name	Variable range	NTSC		480i		480p	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S31	COL OFST	000~255	---	---	---	---	---	---
S32	TNT OFST	000~255	---	---	---	---	---	---

(720p / 1080i / HDCP)

Item No.	Item name	Variable range	720p / 1080i		HDCP			
			STANDARD	THEATER	480p		1080i / 720p	
					STANDARD	THEATER	STANDARD	THEATER
S31	COL OFST	000~255	---	---	010	007	007	000
S32	TNT OFST	000~255	---	---	003	006	004	000

(NTSC / 480i / 480p / 720p / 1080i)

Item No.	Item name	Variable range	NTSC		480i / 480p		720p / 1080i	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S33	BRT OFST	-128~+127	---	---	---	---	---	---
S34	CNT OFST	-128~+127	---	---	---	---	---	---

(HDCP / POP / MULTI)

Item No.	Item name	Variable range	HDCP			
			480p		1080i / 720p	
			STANDARD	THEATER	STANDARD	THEATER
S33	BRT OFST	-128~+127	000	-004	-003	000
S34	CNT OFST	-128~+127	000	000	-003	-005

(SPRIT)

Item No.	Item name	Variable range	SPRIT		POP / MULTI	
			STANDARD	THEATER	STANDARD	THEATER
S33	BRT OFST	-128~+127	000	-004	---	---
S34	CNT OFST	-128~+127	000	000	---	---

Item No.	Item name	Variable range	STANDARD	THEATER
S35	DCTR N SW	000 / 001	000	000
S36	BL OFF	000 / 001	000	000
S37	YGM OFF	000 / 001	000	000
S38	ABL OFF	000 / 001	000	000
S39	ACL OFF	000 / 001	000	000

Item No.	Item name	Variable range	Initial setting value
S40	BLCNT LK	000 / 001	000
S41	YGCNT LK	000 / 001	000
S42	DCTR N PL	000 / 001	000
S43	ABL GAIN	000~015	015
S44	ABL STRT	000~015	015
S45	ACL GAIN	000~015	015
S46	ACL STRT	000~015	000

Item No.	Item name	Variable range	MULTI SCREEN		ASPECT		VIDEO STATUS	
			SPLIT	OTHERS	REGULAR	OTHERS	THEATER	OTHERS
S47	ACL EERG	000~255	255	255	255	255	255	255

(NTSC / 480i / OTHERS)

Item No.	Item name	Variable range	NTSC		480i		OTHERS SIGNAL	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S48	CHRM GM	000~255	128	128	128	128	128	128

(ALL SIGNAL)

Item No.	Item name	Variable range	Initial setting value
S49	OSDR DC	000~127	064
S50	OSDB DC	000~127	064
S51	BLK OFF	000 / 001	000
S52	CNT UNDR	-128~+127	-030
S53	CNT UPPR	-128~+127	+013
S54	BRT UNDR	-128~+127	-020
S55	EETH BRT	-128~+127	000
S56	EETH CNT	-128~+127	000
S57	BREE CNT	000~031	000
S58	DKEE CNT	000~031	000
S59	DREE BRT	000~127	000
S60	BREE ACL	000~255	000
S61	DKEE ACL	000~255	000
S62	VMOFF DE	-128~+127	+005
S63	VM LOW	-128~+127	-020
S64	VM MID	-128~+127	-010
S65	VM HIGH	-128~+127	+010
S66	VM L-	-128~+127	-002
S67	VM LH	-128~+127	-001
S68	VM MH	-128~+127	000
S69	VM M+	-128~+127	+001
S70	(Not display)	000 / 001	000
S71	(Not display)	000 / 001	000
S72	(Not display)	000 / 001	000
S73	(Not display)	000 / 001	000
S74	(Not display)	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
S75	(Not display)	000 / 001	000
S76	(Not display)	000 / 001	000
S77	(Not display)	000 / 001	000
S78	(Not display)	000 / 001	000
S79	(Not display)	000 / 001	000
S80	(Not display)	000 / 001	000
S81	(Not display)	000 / 001	000
S82	(Not display)	000 / 001	000
S83	(Not display)	000 / 001	000
S84	(Not display)	000 / 001	000
S85	(Not display)	000 / 001	000
S86	(Not display)	000 / 001	000
S87	(Not display)	000 / 001	000
S88	(Not display)	000 / 001	000
S89	(Not display)	000 / 001	000
S90	(Not display)	000 / 001	000
S91	(Not display)	000 / 001	000
S92	(Not display)	000 / 001	000
S93	(Not display)	000 / 001	000
S94	(Not display)	000 / 001	000
S95	(Not display)	000 / 001	000
S96	(Not display)	000 / 001	000
S97	(Not display)	000 / 001	000
S98	(Not display)	000 / 001	000
S99	(Not display)	000 / 001	000

OTHERS

Item No.	Item name	Variable range	Initial setting value
F01	(Not display)	000~255	069
F02	(Not display)	000~255	000
F03	(Not display)	000~255	000
F04	(Not display)	000~255	150
F05	CATVMAX	000 / 001	001
F06	(Not display)	000 / 001	000
F07	(Not display)	000~255	000
F08	(Not display)	000~255	008

Item No.	Item name	Variable range	CINEMA	Except CINEMA
F09	AUTO SCR 1	000~015	001	002
F10	AUTO SCR 2	000~015	002	004
F11	AUTO SCR 3	000~015	003	004
F12	AUTO SCR 4	000~015	004	005
F13	AUTO SCR 5	000~015	005	006
F14	AUTO SCR 6	000~015	006	007
F15	AUTO SCR 7	000~015	007	007

Item No.	Item name	Variable range	Initial setting value
F16	Not use	000~127	070
F17	Not use	000 / 001	000
F18	FIX DATA	000 / 001	000
F19	(Not display)	000 / 001	000
F20	(Not display)	000~255	005
F21	(Not display)	000~255	002
F22	(Not display)	000 / 001	000
F23	(Not display)	000~255	000
F24	(Not display)	000~255	141
F25	(Not display)	000~255	006
F26	(Not display)	000~255	040
F27	(Not display)	000~255	040
F28	(Not display)	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
F29	(Not display)	000 / 001	000
F30	(Not display)	000 / 001	000
F31	(Not display)	000 / 001	000
F32	(Not display)	000 / 001	000
F33	(Not display)	000 / 001	000
F34	(Not display)	000 / 001	000
F35	(Not display)	000 / 001	000
F36	(Not display)	000 / 001	000
F37	(Not display)	000 / 001	000
F38	(Not display)	000 / 001	000
F39	(Not display)	000 / 001	000
F40	(Not display)	000 / 001	000

(NTSC / 480i / 480p / 1080i / 720p)

Item No.	Item name	Variable range	NTSC	480i	480p	1080i	720p
F41	(Not display)	000~003	000	000	000	000	000
F42	(Not display)	000 / 001	000	000	000	000	000
F43	(Not display)	000~063	039	015	025	025	025

Item No.	Item name	Variable range	Initial setting value
F44	(Not display)	000 / 001	000
F45	(Not display)	000~007	---
F46	OUT LX	000~255	---
F47	LMT BTM	000~255	---
F48	LMT TOP	000~255	---
F49	(Not display)	000 / 001	---
F50	(Not display)	000 / 001	001
F51	(Not display)	000~007	003
F52	(Not display)	000~063	053
F53	(Not display)	-128~+127	000
F54	(Not display)	000~255	015
F55	(Not display)	000~255	040
F56	(Not display)	000~255	207
F57	(Not display)	000~255	128

Item No.	Item name	Variable range	Initial setting value
F58	(Not display)	000~255	047
F59	(Not display)	000 / 001	001
F60	ATT GAIN	000 / 001	000
F61	(Not display)	000 / 001	001
F62	(Not display)	000 / 001	000
F63	(Not display)	-128~+127	+020
F64	(Not display)	-128~+127	000
F65	(Not display)	-128~+127	-010
F66	(Not display)	000~007	004
F67	(Not display)	000~003	003
F68	(Not display)	000~255	126
F69	(Not display)	000 / 001	000
F70	(Not display)	000 / 001	000

3.7.2 [2.YC SEP] (All fixed)

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item name	Variable range	Initial setting value
YCM001	(Not display)	000 / 001	000
YCM002	(Not display)	000 / 001	000
YCM003	(Not display)	000 / 001	000
YCM004	(Not display)	000~003	001
YCM005	(Not display)	000~255	239
YCM006	(Not display)	000~003	001
YCM007	(Not display)	000~255	239
YCM008	(Not display)	000 / 001	000
YCM009	(Not display)	000~003	000
YCM010	(Not display)	000 / 001	000
YCM011	(Not display)	000 / 001	000
YCM012	(Not display)	000 / 001	000
YCM013	(Not display)	000 / 001	000
YCM014	(Not display)	000~003	000
YCM015	(Not display)	000 / 001	000
YCM016	(Not display)	000~003	001
YCM017	(Not display)	000 / 001	001
YCM018	(Not display)	000~003	000
YCM019	(Not display)	000 / 001	000
YCM020	(Not display)	000 / 001	000
YCM021	(Not display)	000~003	002
YCM022	(Not display)	000~007	004
YCM023	(Not display)	000 / 001	001
YCM024	(Not display)	000 / 001	000
YCM025	(Not display)	000~015	005
YCM026	(Not display)	000~015	003
YCM027	(Not display)	000~003	000
YCM028	(Not display)	000~007	003
YCM029	(Not display)	000~007	002
YCM030	(Not display)	000~003	003
YCM031	(Not display)	000 / 001	000
YCM032	(Not display)	000~003	003
YCM033	(Not display)	000 / 001	001
YCM034	(Not display)	000 / 001	000
YCM035	(Not display)	000~255	096
YCM036	(Not display)	000 / 001	001
YCM037	(Not display)	000~003	001
YCM038	(Not display)	000~127	062

Item No.	Item name	Variable range	Initial setting value
YCM039	(Not display)	000~127	068
YCM040	(Not display)	000~003	002
YCM041	(Not display)	000~063	016
YCM042	(Not display)	000 / 001	000
YCM043	(Not display)	000 / 001	000
YCM044	(Not display)	000~255	182
YCM045	(Not display)	000 / 001	000
YCM046	(Not display)	000~255	127
YCM047	(Not display)	000 / 001	001
YCM048	(Not display)	000 / 001	001
YCM049	(Not display)	000 / 001	001
YCM050	(Not display)	000 / 001	001
YCM051	(Not display)	000 / 001	001
YCM052	(Not display)	000 / 001	000
YCM053	(Not display)	000 / 001	001
YCM054	(Not display)	000~003	003
YCM055	(Not display)	000~003	003
YCM056	(Not display)	000~003	000
YCM057	(Not display)	000 / 001	000
YCM058	(Not display)	000 / 001	001
YCM059	(Not display)	000 / 001	001
YCM060	(Not display)	000 / 001	000
YCM061	(Not display)	000 / 001	001
YCM062	(Not display)	000~015	001
YCM063	(Not display)	000~015	004
YCM064	(Not display)	000~003	000
YCM065	(Not display)	000~063	060
YCM066	(Not display)	000~063	040
YCM067	(Not display)	000~063	025
YCM068	(Not display)	000~063	012
YCM069	(Not display)	000~063	036
YCM070	(Not display)	000~063	031
YCM071	(Not display)	000~127	031
YCM072	(Not display)	000 / 001	001
YCM073	(Not display)	000 / 001	001
YCM074	(Not display)	000~063	024
YCM075	(Not display)	000 / 001	000
YCM076	(Not display)	000 / 001	001
YCM077	(Not display)	000~063	010
YCM078	(Not display)	000~063	001
YCM079	(Not display)	000~255	000
YCM080	(Not display)	000~255	000
YCM081	(Not display)	000~255	000
YCM082	(Not display)	000~255	000
YCM083	(Not display)	000 / 001	001

Item No.	Item name	Variable range	Initial setting value
YCM084	(Not display)	000~063	012
YCM085	(Not display)	000 / 001	000
YCM086	(Not display)	000 / 001	000
YCM087	(Not display)	000~063	028
YCM088	(Not display)	000 / 001	001
YCM089	(Not display)	000~031	000
YCM090	(Not display)	000~003	000
YCM091	(Not display)	000~015	000
YCM092	(Not display)	000~015	000
YCM093	(Not display)	000~015	002
YCM094	(Not display)	000~063	000
YCM095	(Not display)	000~255	025
YCM096	(Not display)	000 / 001	001
YCM097	(Not display)	000~063	063
YCM098	(Not display)	000~015	008
YCM099	(Not display)	000~015	005
YCM100	(Not display)	000~015	008
YCM101	(Not display)	000~015	005
YCM102	(Not display)	000~015	000
YCM103	(Not display)	000~015	002
YCM104	(Not display)	000~015	008
YCM105	(Not display)	000~015	006
YCM106	(Not display)	000~255	010
YCM107	(Not display)	000~255	032
YCM108	(Not display)	000~255	031
YCM109	(Not display)	000~255	064
YCM110	(Not display)	000 / 001	000
YCM111	(Not display)	000 / 001	001
YCM112	(Not display)	000 / 001	001
YCM113	(Not display)	000 / 001	001
YCM114	(Not display)	000 / 001	000
YCM115	(Not display)	000 / 001	001
YCM116	(Not display)	000 / 001	000
YCM117	(Not display)	000 / 001	000
YCM118	(Not display)	000 / 001	001
YCM119	(Not display)	000 / 001	000
YCM120	(Not display)	000 / 001	000
YCM121	(Not display)	000~003	003
YCM122	(Not display)	000 / 001	000
YCM123	(Not display)	000~255	000
YCM124	(Not display)	000 / 001	000
YCM125	(Not display)	000~255	002
YCM126	(Not display)	000 / 001	000
YCM127	(Not display)	000 / 001	001
YCM128	(Not display)	000 / 001	001

Item No.	Item name	Variable range	Initial setting value
YCM129	(Not display)	000 / 001	001
YCM130	(Not display)	000~003	001
YCM131	(Not display)	000~255	050
YCM132	(Not display)	000~255	131
YCM133	(Not display)	000~255	055
YCM134	(Not display)	000~007	001
YCM135	(Not display)	000~255	136
YCM136	(Not display)	000 / 001	000
YCM137	(Not display)	000 / 001	001
YCM138	(Not display)	000~007	003
YCM139	(Not display)	000~255	141
YCM140	(Not display)	000~007	000
YCM141	(Not display)	000~255	014
YCM142	(Not display)	000 / 001	000
YCM143	(Not display)	000~007	005
YCM144	(Not display)	000~255	128
YCM145	(Not display)	000 / 001	000
YCM146	(Not display)	000 / 001	001
YCM147	(Not display)	000 / 001	000
YCM148	(Not display)	000 / 001	001
YCM149	(Not display)	000 / 001	000
YCM150	(Not display)	000 / 001	000
YCM151	(Not display)	000~255	136
YCM152	(Not display)	000 / 001	001
YCM153	(Not display)	000 / 001	001
YCM154	(Not display)	000 / 001	001
YCM155	(Not display)	000~003	000
YCM156	(Not display)	000~015	015
YCM157	(Not display)	000~015	004
YCM158	(Not display)	000 / 001	001
YCM159	(Not display)	000~127	004
YCM160	(Not display)	000 / 001	001
YCM161	(Not display)	000~031	000
YCM162	(Not display)	000 / 001	000
YCM163	(Not display)	000~015	003
YCM164	(Not display)	000~007	002
YCM165	(Not display)	000~031	016
YCM166	(Not display)	000~255	235
YCM167	(Not display)	000~003	000
YCM168	(Not display)	000~063	000
YCM169	(Not display)	000~015	003
YCM170	(Not display)	000~015	003
YCM171	(Not display)	000~007	000
YCM172	(Not display)	000~255	096
YCM173	(Not display)	000~007	003

Item No.	Item name	Variable range	Initial setting value
YCM174	(Not display)	000~255	056
YCM175	(Not display)	000 / 001	000
YCM176	(Not display)	000 / 001	000
YCM177	(Not display)	000~255	022
YCM178	(Not display)	000 / 001	001
YCM179	(Not display)	000 / 001	000
YCM180	(Not display)	000~007	004
YCM181	(Not display)	000~003	001
YCM182	(Not display)	000~003	001
YCM183	(Not display)	000~003	001
YCM184	(Not display)	000~003	001
YCM185	(Not display)	000~255	000
YCS001	(Not display)	000 / 001	000
YCS002	(Not display)	000 / 001	000
YCS003	(Not display)	000 / 001	000
YCS004	(Not display)	000~003	001
YCS005	(Not display)	000~255	239
YCS006	(Not display)	000~003	001
YCS007	(Not display)	000~255	239
YCS008	(Not display)	000 / 001	000
YCS009	(Not display)	000~003	000
YCS010	(Not display)	000 / 001	000
YCS011	(Not display)	000 / 001	000
YCS012	(Not display)	000 / 001	000
YCS013	(Not display)	000 / 001	000
YCS014	(Not display)	000~003	000
YCS015	(Not display)	000 / 001	000
YCS016	(Not display)	000~003	001
YCS017	(Not display)	000 / 001	001
YCS018	(Not display)	000~003	000
YCS019	(Not display)	000~001	000
YCS020	(Not display)	000~001	000
YCS021	(Not display)	000~003	002
YCS022	(Not display)	000~007	004
YCS023	(Not display)	000 / 001	001
YCS024	(Not display)	000 / 001	000
YCS025	(Not display)	000~015	005
YCS026	(Not display)	000~015	003
YCS027	(Not display)	000~003	000
YCS028	(Not display)	000~007	003
YCS029	(Not display)	000~007	006
YCS030	(Not display)	000~003	003
YCS031	(Not display)	000 / 001	000
YCS032	(Not display)	000~003	003
YCS033	(Not display)	000 / 001	001

Item No.	Item name	Variable range	Initial setting value
YCS034	(Not display)	000 / 001	000
YCS035	(Not display)	000~255	096
YCS036	(Not display)	000 / 001	001
YCS037	(Not display)	000~003	001
YCS038	(Not display)	000~127	062
YCS039	(Not display)	000~127	068
YCS040	(Not display)	000~003	001
YCS041	(Not display)	000~063	016
YCS042	(Not display)	000 / 001	000
YCS043	(Not display)	000 / 001	000
YCS044	(Not display)	000~255	144
YCS045	(Not display)	000 / 001	000
YCS046	(Not display)	000~255	100
YCS047	(Not display)	000 / 001	001
YCS048	(Not display)	000~031	000
YCS049	(Not display)	000~003	000
YCS050	(Not display)	000~015	000
YCS051	(Not display)	000~015	008
YCS052	(Not display)	000~015	001
YCS053	(Not display)	000~063	030
YCS054	(Not display)	000~255	030
YCS055	(Not display)	000 / 001	001
YCS056	(Not display)	000~063	016
YCS057	(Not display)	000~015	008
YCS058	(Not display)	000~015	005
YCS059	(Not display)	000~015	008
YCS060	(Not display)	000~015	005
YCS061	(Not display)	000~015	000
YCS062	(Not display)	000~015	002
YCS063	(Not display)	000~015	008
YCS064	(Not display)	000~015	006
YCS065	(Not display)	000~255	010
YCS066	(Not display)	000~255	032
YCS067	(Not display)	000~255	031
YCS068	(Not display)	000~255	064
YCS069	(Not display)	000 / 001	000
YCS070	(Not display)	000 / 001	001
YCS071	(Not display)	000 / 001	001
YCS072	(Not display)	000 / 001	001
YCS073	(Not display)	000 / 001	000
YCS074	(Not display)	000 / 001	001
YCS075	(Not display)	000 / 001	000
YCS076	(Not display)	000 / 001	000
YCS077	(Not display)	000 / 001	001
YCS078	(Not display)	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
YCS079	(Not display)	000 / 001	000
YCS080	(Not display)	000~003	003
YCS081	(Not display)	000 / 001	000
YCS082	(Not display)	000~255	000
YCS083	(Not display)	000~255	000
YCS084	(Not display)	000~007	000
YCS085	(Not display)	000~255	014
YCS086	(Not display)	000 / 001	000
YCS087	(Not display)	000 / 001	001
YCS088	(Not display)	000 / 001	000
YCS089	(Not display)	000 / 001	000
YCS090	(Not display)	000~255	136
YCS091	(Not display)	000 / 001	001
YCS092	(Not display)	000 / 001	001
YCS093	(Not display)	000 / 001	001
YCS094	(Not display)	000~003	000
YCS095	(Not display)	000~015	015
YCS096	(Not display)	000~015	004
YCS097	(Not display)	000 / 001	001
YCS098	(Not display)	000~127	007
YCS099	(Not display)	000~031	000
YCS100	(Not display)	000 / 001	000
YCS101	(Not display)	000~015	003
YCS102	(Not display)	000~007	002
YCS103	(Not display)	000~031	016
YCS104	(Not display)	000~255	235
YCS105	(Not display)	000~003	000
YCS106	(Not display)	000~063	000
YCS107	(Not display)	000~015	003
YCS108	(Not display)	000~015	003
YCS109	(Not display)	000 / 001	000
YCS110	(Not display)	000~003	001
YCS111	(Not display)	000~003	001
YCS112	(Not display)	000~003	001
YCS113	(Not display)	000~003	001
YCS114	(Not display)	000~255	000

3.7.3 [3.WHITE BALANCE]

NOTE :

Initial setting value is reference value at following condition.

INPUT SYGNAL : NTSC
 ASPECT : FULL
 MULTI : SINGLE
 VIDEO STATUS : STANDARD
 COLOR TEMPRETURE : LOW

Item No.	Item name	Variable range	Initial setting value
BR	(Not display)	000~238	133
DRV R	(Not display)	000~255	072
DRV B	(Not display)	000~255	060
CUT R	(Not display)	000~255	188
CUT G	(Not display)	000~255	149
CUT B	(Not display)	000~255	215

3.7.4 [6.CONVER A]

Item No.	Item name	Variable range	Initial setting value
CPA01	OSD H	0~4095	147
CPA02	OSD V	0~1023	18
CPA03	FINE H	0~4095	1660
CPA04	FINE V	0~4095	50
CPA05	CAU V	0~4095	3920
CPA06	CAU H1	0~65535	0
CPA07	CAU H2	0~255	11
CPA08	FINE OFF	0 / 1	0
CCA01	C H CENT	-512~+511	0
CCA02	C H SIZE	-512~+511	-12
CCA03	C H LINE	-512~+511	-29
CCA04	C H SKEW	-512~+511	0
CCA05	C EW PIN	-512~+511	17
CCA06	C H BOW	-512~+511	0
CCA07	C V CENT	-512~+511	0
CCA08	C V SKEW	-512~+511	0
CCA09	C V SIZE	-512~+511	-95

Item No.	Item name	Variable range	Initial setting value
CBA01	LINE COMP	0~3	2
CBA02	INTER NUM	0~15	9
CBA03	INTERLACE	0 / 1	0
CBA04	ADD RATIO	0~3	0
CBA05	DAC NUM	0 / 1	1
CBA06	CKOUT FRF	0~7	0
CBA07	ODD LVEL	0 / 1	1
CBA08	V1CNTUP	0~4095	310
CBA09	RETRACE	0 / 1	1
CBA10	RV CLAMP	0 / 1	1

Item No.	Item name	Variable range	Initial setting value
CBA11	GV CLAMP	0 / 1	1
CBA12	BV CLAMP	0 / 1	1
CBA13	RH CLAMP	0 / 1	0
CBA14	GH CLAMP	0 / 1	0
CBA15	BH CLAMP	0 / 1	0
CBA16	PATTERN H 1	0~3	1
CBA17	PATTERN W 1	0~3	1
CBA18	CURSPACE	0~3	0
CBA19	ODEV POSI	0~4095	1
CBA20	HBLKOUT	0 / 1	1
CBA21	HBLKOP	0~4095	2091
CBA22	HBLKOW	0~4095	373
CBA23	PWM1P	0~4095	0
CBA24	PWM1W	0~4095	256
CBA25	PWM2P	0~4095	0
CBA26	PWM2W	0~4095	0
CBA27	VBLK01P	0~1023	0
CBA28	VBLK01W	0~1023	1
CBA29	VBLK02P	0~1023	0
CBA30	VBLK02W	0~1023	0
CBA31	VBLK03P	0~1023	0
CBA32	VBLK03W	0~1023	0
CBA33	VBLK04P	0~1023	0
CBA34	VBLK04W	0~1023	0
CBA35	HATCH COL	0~7	2
CBA36	BORDE COL	0~7	0
CBA37	CROSS COL	0~7	0
CBA38	BLOCK COL	0~7	0
CBA39	AF1 POSV	0~2490	0
CBA40	AF1 POSH	0~4095	62
CBA41	AF1VSIZE	0~255	200
CBA42	AF1HSIZE	0~511	100
CBA43	AF2POSV	0~2490	548
CBA44	AF2POSH	0~4095	200
CBA45	AF2VSIZE	0~255	100
CBA46	AF2HSIZE	0~511	200
CBA47	AF3POSV	0~2490	946
CBA48	AF3POSH	0~4095	1061
CBA49	AF3VSIZE	0~255	200
CBA50	AF3HSIZE	0~511	100
CBA51	AF4POSV	0~2490	546
CBA52	AF4POSH	0~4095	1730
CBA53	AF4VSIZE	0~255	100
CBA54	AF4HSIZE	0~511	200
CBA55	AF5POSH	0~2490	548

Item No.	Item name	Variable range	Initial setting value
CBA56	AF5POSV	0~4095	1016
CBA57	AF5HSIZE	0~255	4
CBA58	AF5VSIZE	0~511	80
CBA59	AF6POSH	0~2490	505
CBA60	AF6POSV	0~4095	1056
CBA61	AF6VSIZE	0~255	80
CBA62	AF6HSIZE	0~511	4
CBA63	AF7POSV	0~2490	0
CBA64	AF7POSH	0~4095	0
CBA65	AF7VSIZE	0~255	0
CBA66	AF7HSIZE	0~511	0
CBA67	AF8POSV	0~2490	0
CBA68	AF8POSH	0~4095	0
CBA69	AF8VSIZE	0~255	0
CBA70	AF8HSIZE	0~511	0
CBA71	BL1POSV	0~2490	0
CBA72	BL1POSH	0~4095	0
CBA73	BL2POSV	0~255	0
CBA74	BL2POSH	0~511	0
CBA75	XLPOSV	0~2490	545
CBA76	XLPOSH	0~4095	1056
CBA77	XLLENV	0~255	185
CBA78	XLLENH	0~511	421
CBA79	FINE LIMT	0~2490	80
CBA80	DC LIMT	0~4095	50

3.7.5 [8.PP]

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item name	Variable range	Initial setting value
ADM001	(Not display)	000~0FF	0D6
ADM002	(Not display)	000~00F	007
ADM003	(Not display)	000~003	001
ADM004	(Not display)	000~007	005
ADM005	(Not display)	000~01F	016
ADM006	(Not display)	000~0FF	036
ADM007	(Not display)	000~0FF	08A
ADM008	(Not display)	000~0FF	020

Item No.	Item name	Variable range	Initial setting value
ADM009	<i>(Not display)</i>	000~0FF	0FF
ADM010	<i>(Not display)</i>	000~0FF	0FF
ADM011	<i>(Not display)</i>	000~0FF	0FF
ADM012	<i>(Not display)</i>	000~07F	03A
ADM013	<i>(Not display)</i>	000~07F	02C
ADM014	<i>(Not display)</i>	000~07F	03C
ADM015	<i>(Not display)</i>	000 / 001	001
ADM016	<i>(Not display)</i>	000 / 001	001
ADM017	<i>(Not display)</i>	000 / 001	000
ADM018	<i>(Not display)</i>	000 / 001	001
ADM019	<i>(Not display)</i>	000 / 001	000
ADM020	<i>(Not display)</i>	000 / 001	000
ADM021	<i>(Not display)</i>	000 / 001	001
ADM022	<i>(Not display)</i>	000 / 001	000
ADM023	<i>(Not display)</i>	000 / 001	000
ADM024	<i>(Not display)</i>	000 / 001	001
ADM025	<i>(Not display)</i>	000 / 001	000
ADM026	<i>(Not display)</i>	000 / 001	001
ADM027	<i>(Not display)</i>	000 / 001	001
ADM028	<i>(Not display)</i>	000 / 001	001
ADM029	<i>(Not display)</i>	000 / 001	001
ADM030	<i>(Not display)</i>	000~01F	003
ADM031	<i>(Not display)</i>	000 / 001	001
ADM032	<i>(Not display)</i>	000 / 001	000
ADM033	<i>(Not display)</i>	000 / 001	001
ADM034	<i>(Not display)</i>	000~0FF	032

Item No.	Item name	Variable range	Initial setting value
PPA001	<i>(Not display)</i>	000~255	000
PPA002	<i>(Not display)</i>	000~255	000
PPA003	<i>(Not display)</i>	000~255	047
PPA004	<i>(Not display)</i>	000~255	000
PPA005	<i>(Not display)</i>	000~255	000
PPA006	<i>(Not display)</i>	000~255	001
PPA007	<i>(Not display)</i>	000~255	047
PPA008	<i>(Not display)</i>	000~255	023

Item No.	Item name	Variable range	Initial setting value
PPB001	<i>(Not display)</i>	000~031	000
PPB002	<i>(Not display)</i>	000~255	000
PPB003	<i>(Not display)</i>	000~255	000
PPB004	<i>(Not display)</i>	000~031	000
PPB005	<i>(Not display)</i>	000~255	00D
PPB006	<i>(Not display)</i>	000~255	0F8
PPB007	<i>(Not display)</i>	000~031	000

Item No.	Item name	Variable range	Initial setting value
PPB008	<i>(Not display)</i>	000~255	01B
PPB009	<i>(Not display)</i>	000~255	0D0
PPB010	<i>(Not display)</i>	000~031	000
PPB011	<i>(Not display)</i>	000~255	000

Item No.	Item name	Variable range	Initial setting value
PPB012	<i>(Not display)</i>	000~255	000
PPB013	<i>(Not display)</i>	000~031	000
PPB014	<i>(Not display)</i>	000~255	000
PPB015	<i>(Not display)</i>	000~255	000
PPB016	<i>(Not display)</i>	000~031	000
PPB017	<i>(Not display)</i>	000~255	000
PPB018	<i>(Not display)</i>	000~255	000
PPB019	<i>(Not display)</i>	000~031	000
PPB020	<i>(Not display)</i>	000~255	000
PPB021	<i>(Not display)</i>	000~255	000
PPB022	<i>(Not display)</i>	000~031	000
PPB023	<i>(Not display)</i>	000~255	000
PPB024	<i>(Not display)</i>	000~255	000
PPB025	<i>(Not display)</i>	000~031	000
PPB026	<i>(Not display)</i>	000~255	000
PPB027	<i>(Not display)</i>	000~255	000
PPB028	<i>(Not display)</i>	000~031	000
PPB029	<i>(Not display)</i>	000~255	000
PPB030	<i>(Not display)</i>	000~255	000
PPB031	<i>(Not display)</i>	000~031	000
PPB032	<i>(Not display)</i>	000~255	000
PPB033	<i>(Not display)</i>	000~255	000
PPB034	<i>(Not display)</i>	000~031	000
PPB035	<i>(Not display)</i>	000~255	000
PPB036	<i>(Not display)</i>	000~255	000

Item No.	Item name	Variable range	Initial setting value
PPC001	<i>(Not display)</i>	000~00F	000
PPC002	<i>(Not display)</i>	000~0FF	00C
PPC003	<i>(Not display)</i>	000~0FF	002
PPC004	<i>(Not display)</i>	000~00F	000
PPC005	<i>(Not display)</i>	000~0FF	000
PPC006	<i>(Not display)</i>	000~00F	000
PPC007	<i>(Not display)</i>	000~0FF	000
PPC008	<i>(Not display)</i>	000~03F	000

Item No.	Item name	Variable range	Initial setting value
PPD001	(Not display)	000~OFF	008
PPD002	(Not display)	000~00F	063
PPD003	(Not display)	000~OFF	063
PPD004	(Not display)	000~00F	0CB
PPD005	(Not display)	000~OFF	0C0
PPD006	(Not display)	000~00F	045
PPD007	(Not display)	000~OFF	041
PPD008	(Not display)	000~00F	035
PPD009	(Not display)	000~OFF	030
PPD010	(Not display)	000~00F	000
PPD011	(Not display)	000~OFF	024
PPD012	(Not display)	000~00F	001
PPD013	(Not display)	000~OFF	039
PPD014	(Not display)	000~00F	000
PPD015	(Not display)	000~OFF	096
PPD016	(Not display)	000~00F	001
PPD017	(Not display)	000~OFF	086
PPD018	(Not display)	000~00F	000
PPD019	(Not display)	000~OFF	024
PPD020	(Not display)	000~00F	001
PPD021	(Not display)	000~OFF	050
PPD022	(Not display)	000~00F	000
PPD023	(Not display)	000~OFF	0AA
PPD024	(Not display)	000~00F	001
PPD025	(Not display)	000~OFF	072

3.7.6 [9.IP] (All fixed)

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item name	Variable range	Initial setting value
IPA001	(Not display)	000 / 001	001
IPA002	(Not display)	000~03F	030
IPA003	(Not display)	000~03F	02E
IPA004	(Not display)	000~03F	030
IPA005	(Not display)	000~003	000
IPA006	(Not display)	000~003	000
IPA007	(Not display)	000~00F	008
IPA008	(Not display)	000~03F	000
IPA009	(Not display)	000~03F	01D
IPA010	(Not display)	000~03F	010
IPA011	(Not display)	000~03F	018

Item No.	Item name	Variable range	Initial setting value
IPA012	(Not display)	000~03F	028
IPA013	(Not display)	000~003	002
IPA014	(Not display)	000~003	002
IPA015	(Not display)	000~00F	00F
IPA016	(Not display)	000~03F	D1B
IPA017	(Not display)	000 / 001	001
IPA018	(Not display)	000~03F	0FF
IPA019	(Not display)	000 / 001	001
IPA020	(Not display)	000 / 001	001
IPA021	(Not display)	000~03F	01F
IPA022	(Not display)	000~003	000
IPA023	(Not display)	000~03F	008
IPA024	(Not display)	000 / 001	001
IPA025	(Not display)	000 / 001	001
IPA026	(Not display)	000~03F	01F
IPA027	(Not display)	000~003	000
IPA028	(Not display)	000~03F	008
IPA029	(Not display)	000~03F	01C
IPA030	(Not display)	000~00F	000
IPA031	(Not display)	000~007	001
IPA032	(Not display)	000~03F	010
IPA033	(Not display)	000 / 001	001
IPA034	(Not display)	000~03F	034
IPA035	(Not display)	000 / 001	001
IPA036	(Not display)	000~03F	00E
IPA037	(Not display)	000~03F	02E
IPA038	(Not display)	000~03F	01E
IPA039	(Not display)	000~003	002
IPA040	(Not display)	000~003	003
IPA041	(Not display)	000~00F	008
IPA042	(Not display)	000~03F	020
IPA043	(Not display)	000~03F	020
IPA044	(Not display)	000~03F	006
IPA045	(Not display)	000~03F	00E
IPA046	(Not display)	000~03F	01E
IPA047	(Not display)	000~003	002
IPA048	(Not display)	000~003	003
IPA049	(Not display)	000~00F	008
IPA050	(Not display)	000~03F	020
IPA051	(Not display)	000 / 001	001
IPA052	(Not display)	000~03F	020
IPA053	(Not display)	000 / 001	001
IPA054	(Not display)	000 / 001	001
IPA055	(Not display)	000~03F	020
IPA056	(Not display)	000~003	002

Item No.	Item name	Variable range	Initial setting value
IPA057	(Not display)	000~03F	020
IPA058	(Not display)	000 / 001	001
IPA059	(Not display)	000 / 001	001
IPA060	(Not display)	000~03F	020
IPA061	(Not display)	000~003	002
IPA062	(Not display)	000~03F	020
IPA063	(Not display)	000~03F	020
IPA064	(Not display)	000~00F	008
IPA065	(Not display)	000~007	002
IPA066	(Not display)	000~03F	020
IPA067	(Not display)	000 / 001	001
IPA068	(Not display)	000~03F	020
IPA069	(Not display)	000~003	000
IPA070	(Not display)	000~0FF	000
IPA071	(Not display)	000~00F	008
IPA072	(Not display)	000~0FF	098
IPA073	(Not display)	000 / 001	000
IPA074	(Not display)	000 / 001	000
IPA075	(Not display)	000~0FF	013
IPA076	(Not display)	000 / 001	000
IPA077	(Not display)	000 / 001	000
IPA078	(Not display)	000 / 001	000
IPA079	(Not display)	000 / 001	000
IPA080	(Not display)	000 / 001	000
IPA081	(Not display)	000 / 001	000
IPA082	(Not display)	000 / 001	000
IPA083	(Not display)	000 / 001	000
IPA084	(Not display)	000 / 001	000
IPA085	(Not display)	000 / 001	000
IPA086	(Not display)	000 / 001	000
IPA087	(Not display)	000 / 001	000
IPA088	(Not display)	000 / 001	000
IPA089	(Not display)	000 / 001	000
IPA090	(Not display)	000 / 001	000
IPA091	(Not display)	000~00F	000
IPA092	(Not display)	000~0FF	000
IPA093	(Not display)	000~00F	00F
IPA094	(Not display)	000~0FF	0FF
IPA095	(Not display)	000~00F	000
IPA096	(Not display)	000~0FF	000
IPA097	(Not display)	000~00F	00F
IPA098	(Not display)	000~0FF	0FF
IPA099	(Not display)	000~00F	000
IPA100	(Not display)	000~0FF	000
IPA101	(Not display)	000~00F	000

Item No.	Item name	Variable range	Initial setting value
IPA102	(Not display)	000~0FF	000
IPA103	(Not display)	000~00F	000
IPA104	(Not display)	000~0FF	000
IPA105	(Not display)	000~00F	000
IPA106	(Not display)	000~0FF	000
IPA107	(Not display)	000~00F	000
IPA108	(Not display)	000~0FF	080
IPA109	(Not display)	000~00F	000
IPA110	(Not display)	000~0FF	040
IPA111	(Not display)	000~00F	005
IPA112	(Not display)	000~0FF	040
IPA113	(Not display)	000~00F	000
IPA114	(Not display)	000~0FF	0C0
IPA115	(Not display)	000~00F	002
IPA116	(Not display)	000~0FF	0ET
IPA117	(Not display)	000 / 001	000
IPA118	(Not display)	000 / 001	000
IPA119	(Not display)	000 / 001	000
IPA120	(Not display)	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
IPB001	(Not display)	000~0FF	000
IPB002	(Not display)	000~0FF	0D4
IPB003	(Not display)	000~00F	000
IPB004	(Not display)	000~0FF	0FC
IPB005	(Not display)	000~00F	003
IPB006	(Not display)	000~0FF	089
IPB007	(Not display)	000~00F	003
IPB008	(Not display)	000~0FF	089
IPB009	(Not display)	000~00F	002
IPB010	(Not display)	000~0FF	02D
IPB011	(Not display)	000~00F	001
IPB012	(Not display)	000~0FF	073
IPB013	(Not display)	000~00F	000
IPB014	(Not display)	000~0FF	069
IPB015	(Not display)	000~00F	000
IPB016	(Not display)	000~0FF	00E
IPB017	(Not display)	000~00F	000
IPB018	(Not display)	000~0FF	016
IPB019	(Not display)	000~00F	000
IPB020	(Not display)	000~0FF	010
IPB021	(Not display)	000~00F	000
IPB022	(Not display)	000~0FF	02D
IPB023	(Not display)	000~00F	000
IPB024	(Not display)	000~0FF	000

Item No.	Item name	Variable range	Initial setting value
IPB025	(Not display)	000~00F	00F
IPB026	(Not display)	000~0FF	000
IPB027	(Not display)	000~00F	005
IPB028	(Not display)	000~0FF	033
IPB029	(Not display)	000~00F	000
IPB030	(Not display)	000~0FF	04A
IPB031	(Not display)	000~00F	00F
IPB032	(Not display)	000~0FF	000
IPB033	(Not display)	000~00F	00F
IPB034	(Not display)	000~0FF	000
IPB035	(Not display)	000~00F	001
IPB036	(Not display)	000~0FF	000
IPB037	(Not display)	000 / 001	000
IPB038	(Not display)	000~007	000
IPB039	(Not display)	000~00F	000
IPB040	(Not display)	000~00F	003
IPB041	(Not display)	000~00F	000
IPB042	(Not display)	000~0FF	000
IPB043	(Not display)	000~00F	002
IPB044	(Not display)	000~0FF	0DB
IPB045	(Not display)	000~00F	000
IPB046	(Not display)	000~0FF	000
IPB047	(Not display)	000~00F	00F
IPB048	(Not display)	000~0FF	0FF
IPB049	(Not display)	000~00F	00F
IPB050	(Not display)	000~0FF	0FF
IPB051	(Not display)	000~00F	00F
IPB052	(Not display)	000~0FF	0FF
IPB053	(Not display)	000~00F	00F
IPB054	(Not display)	000~0FF	0FF
IPB055	(Not display)	000~00F	000
IPB056	(Not display)	000~0FF	0CE
IPB057	(Not display)	000~00F	00F
IPB058	(Not display)	000~0FF	000
IPB059	(Not display)	000~007	004
IPB060	(Not display)	000~003	000
IPB061	(Not display)	000~003	002
IPB062	(Not display)	000 / 001	000
IPB063	(Not display)	000~0FF	040
IPB064	(Not display)	000~0FF	080
IPB065	(Not display)	000~0FF	080
IPB066	(Not display)	000 / 001	000
IPB067	(Not display)	000~00F	000
IPB068	(Not display)	000~00F	000
IPB069	(Not display)	000~00F	000

Item No.	Item name	Variable range	Initial setting value
IPB070	(Not display)	000~00F	00F
IPB071	(Not display)	000~0FF	000
IPB072	(Not display)	000~00F	000
IPB073	(Not display)	000~0FF	000
IPB074	(Not display)	000 / 001	000
IPB075	(Not display)	000 / 001	000
IPB076	(Not display)	000 / 001	000
IPB077	(Not display)	000~00F	001
IPB078	(Not display)	000 / 001	001
IPB079	(Not display)	000~0FF	089

Item No.	Item name	Variable range	Initial setting value
IPC001	(Not display)	000~003	002
IPC002	(Not display)	000~0FF	018
IPC003	(Not display)	000 / 001	000
IPC004	(Not display)	000 / 001	000
IPC005	(Not display)	000~00F	000
IPC006	(Not display)	000~0FF	000
IPC007	(Not display)	000~00F	008
IPC008	(Not display)	000~0FF	097
IPC009	(Not display)	000~00F	004
IPC010	(Not display)	000~0FF	064
IPC011	(Not display)	000~00F	000
IPC012	(Not display)	000~0FF	000
IPC013	(Not display)	000~003	000
IPC014	(Not display)	000 / 001	000
IPC015	(Not display)	000 / 001	001
IPC016	(Not display)	000~0FF	000
IPC017	(Not display)	000 / 001	000
IPC018	(Not display)	000~07F	000
IPC019	(Not display)	000 / 001	000
IPC020	(Not display)	000~07F	001
IPC021	(Not display)	000~00F	000
IPC022	(Not display)	000~0FF	068
IPC023	(Not display)	000~003	000
IPC024	(Not display)	000~0FF	00F
IPC025	(Not display)	000 / 001	000
IPC026	(Not display)	000~07F	020
IPC027	(Not display)	000~001	000
IPC028	(Not display)	000~07F	01B
IPC029	(Not display)	000 / 001	001
IPC030	(Not display)	000 / 001	000
IPC031	(Not display)	000 / 001	000
IPC032	(Not display)	000 / 001	001
IPC033	(Not display)	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
IPC034	<i>(Not display)</i>	000 / 001	000
IPC035	<i>(Not display)</i>	000 / 001	000
IPC036	<i>(Not display)</i>	000 / 001	000
IPC037	<i>(Not display)</i>	000 / 001	000
IPC038	<i>(Not display)</i>	000 / 001	000
IPC039	<i>(Not display)</i>	000 / 001	001
IPC040	<i>(Not display)</i>	000 / 001	000
IPC041	<i>(Not display)</i>	000 / 001	000
IPC042	<i>(Not display)</i>	000 / 001	000
IPC043	<i>(Not display)</i>	000 / 001	000
IPC044	<i>(Not display)</i>	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
IPD001	<i>(Not display)</i>	000~0FF	040
IPD002	<i>(Not display)</i>	000~0FF	000
IPD003	<i>(Not display)</i>	000~0FF	000
IPD004	<i>(Not display)</i>	000~007	000
IPD005	<i>(Not display)</i>	000~0FF	014
IPD006	<i>(Not display)</i>	000~007	002
IPD007	<i>(Not display)</i>	000~0FF	034
IPD008	<i>(Not display)</i>	000 / 001	001
IPD009	<i>(Not display)</i>	000~00F	001
IPD010	<i>(Not display)</i>	000~0FF	03C
IPD011	<i>(Not display)</i>	000~00F	008
IPD012	<i>(Not display)</i>	000~0FF	086
IPD013	<i>(Not display)</i>	000~007	001
IPD014	<i>(Not display)</i>	000~007	000
IPD015	<i>(Not display)</i>	000 / 001	000
IPD016	<i>(Not display)</i>	000 / 001	000
IPD017	<i>(Not display)</i>	000~0FF	000
IPD018	<i>(Not display)</i>	000~007	000
IPD019	<i>(Not display)</i>	000~0FF	018
IPD020	<i>(Not display)</i>	000~007	002
IPD021	<i>(Not display)</i>	000~0FF	02F
IPD022	<i>(Not display)</i>	000 / 001	001
IPD023	<i>(Not display)</i>	000~00F	001
IPD024	<i>(Not display)</i>	000~0FF	03D
IPD025	<i>(Not display)</i>	000~00F	008
IPD026	<i>(Not display)</i>	000~0FF	042

Item No.	Item name	Variable range	Initial setting value
IPE001	<i>(Not display)</i>	000~255	001
IPE002	<i>(Not display)</i>	000~255	002
IPE003	<i>(Not display)</i>	000~255	001
IPE004	<i>(Not display)</i>	000~255	002
IPE005	<i>(Not display)</i>	000~255	001
IPE006	<i>(Not display)</i>	000~255	002
IPE007	<i>(Not display)</i>	000~255	001
IPE008	<i>(Not display)</i>	000~255	001
IPE009	<i>(Not display)</i>	-128~+127	+015
IPE010	<i>(Not display)</i>	-128~+127	+015
IPE011	<i>(Not display)</i>	-128~+127	+015
IPE012	<i>(Not display)</i>	-128~+127	+015
IPE013	<i>(Not display)</i>	-128~+127	-004
IPE014	<i>(Not display)</i>	-128~+127	+008
IPE015	<i>(Not display)</i>	000~015	068

3.8 ADJUSTMENT PROCEDURE

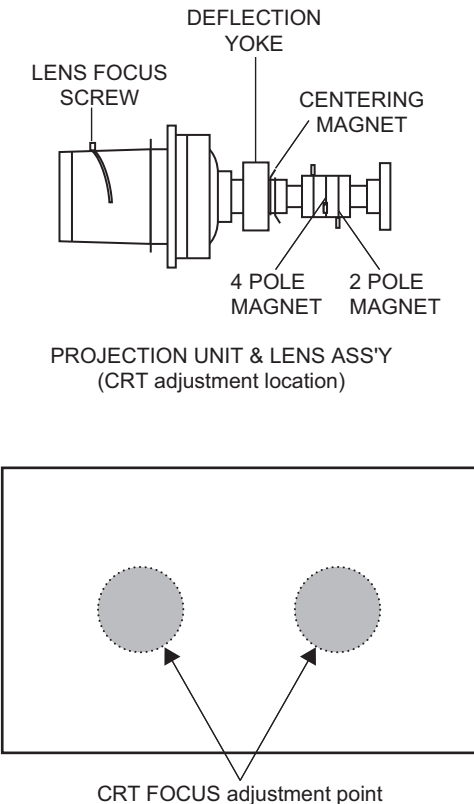
3.8.1 CHECK ITEMS

Item	Measuring instrument	Test point	Adjustment part	Description
HIGH VOLTAGE check	Signal generator High voltage meter	CRT Anode		(1) Receive NTSC whole black signal. (2) Connect the high voltage meter between CRT anode and GND. (3) Check that the high voltage range DC 31.0kV±1.0kV.
X-RAY PROTECTOR check	Resistor [6.8k ohm 1/4W ±5%]	S1 connector 2 pin : X-Ray2 3 pin : X-Ray1		(1) Receive any broadcast. (2) Connect resistor 6.8k ohm(1/4W, ±5%) between 2 pin & 3 pin of the connector S1. (3) Confirm that the X-RAY protector functions operated.

3.8.2 HORIZONTAL FREQUENCY ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
H. FREQUENCY adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D15 : H. FREQ. D18 : DEF. RST	(1) Receive any broadcast. (2) Press [ASPECT] key and select FULL mode. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <D19> (DEF. RST) and change the data 0 to 1. (5) While observing the screen, adjust the <D15> (H. FREQ) so that an optimum horizontal synchronization is obtained. (6) After adjustment, select <D19> and change the data 1 to 0. (7) Press [MUTING] key to memorize the set value.

3.8.3 FOCUS & BEAM SPOT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS & BEAM SPOT adjustment	Signal generator		R Def. Yoke (DY) G Def. Yoke (DY) B Def. Yoke (DY) [PROJECTION UNIT] R LENS FOCUS screw G LENS FOCUS screw B LENS FOCUS screw [PROJECTION UNIT (LENS ASS'Y)] R SCREEN VR G SCREEN VR B SCREEN VR [FOCUS PACK] 4 pole magnet 2 pole magnet [PROJECTION UNIT (R / G / B CRT neck)] R FOCUS VR G FOCUS VR B FOCUS VR [FOCUS PACK]	(1) Receive NTSC cross-hatch signal. (2) Press [ASPECT] key and select FULL mode. (3) If the picture tilted, adjust the R, G and B DY position to mark straight horizontal line. LENS FOCUS (1) Make a single RED color. NOTE : In order to make a single color, turn down other two SCREEN VRs or cover the other two lenses. (2) Loosen the Lens Focus Screw (in LENS ASS'Y) and adjust the lens focus for optimum focus at the screen center. Get an overall (balanced) center and peripheral focus. If the peripheral focus is poor, slightly shift the center focus to obtain overall balanced focus. (3) In the same manner, make green and blue single color and adjust their respective focus. (4) After adjustment, secure the Lens Focus Screw. NOTE : There should not be a difference in the focus between the top and bottom, or either sides, or diagonal. When the difference of the focus is big, remove the main lens, insert a washer between the main lens and the coupler, and readjust Lens Focus.
	Similar adhesive (Securing adhesive)		 <p>DEFLECTION YOKE</p> <p>LENS FOCUS SCREW</p> <p>CENTERING MAGNET</p> <p>4 POLE MAGNET</p> <p>2 POLE MAGNET</p> <p>PROJECTION UNIT & LENS ASS'Y (CRT adjustment location)</p> <p>CRT FOCUS adjustment point</p>	BEAM SPOT (5) Receive NTSC dot pattern signal. (6) Make a single RED color. NOTE : In order to make a single color, turn down other two SCREEN VRs or cover the other two lenses. (7) Turn the R FOCUS VR to set the dot diameter to about Ø30mm. (8) Turn the 4 pole magnet of the projection unit CRT neck to make the dots at the screen center nearly circular. (9) Return the R FOCUS VR to its original position (just focus). (10) Turn the 2 pole magnet of the CRT neck to minimize expansion of the dots. (11) In the same manner, adjust the magnets on the green and blue CRTs. (12) Secure the 4 and 2 pole magnets with ThreeBond or equivalent sealant. CRT FOCUS (13) Receive NTSC crosshatch signal. (14) Make a single red color. NOTE : In order to make a single color, turn down other two SCREEN VRs or cover the other two lenses (15) Adjust the R FOCUS VR for optimum focus at the position indicated in the figure. (16) In the same manner, after turning off the other beams, adjust for the green and blue focus. (17) After adjustment, return the SCREEN VRs to the optimum positions. NOTE : When moving screen VR, always return to original.

3.8.4 DEFLECTION & CONVERGENCE ADJUSTMENT

- The 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.
- At first the adjustment in FULL mode should be done, then the data for the other ASPECT mode is corrected in the respective value at the same time.

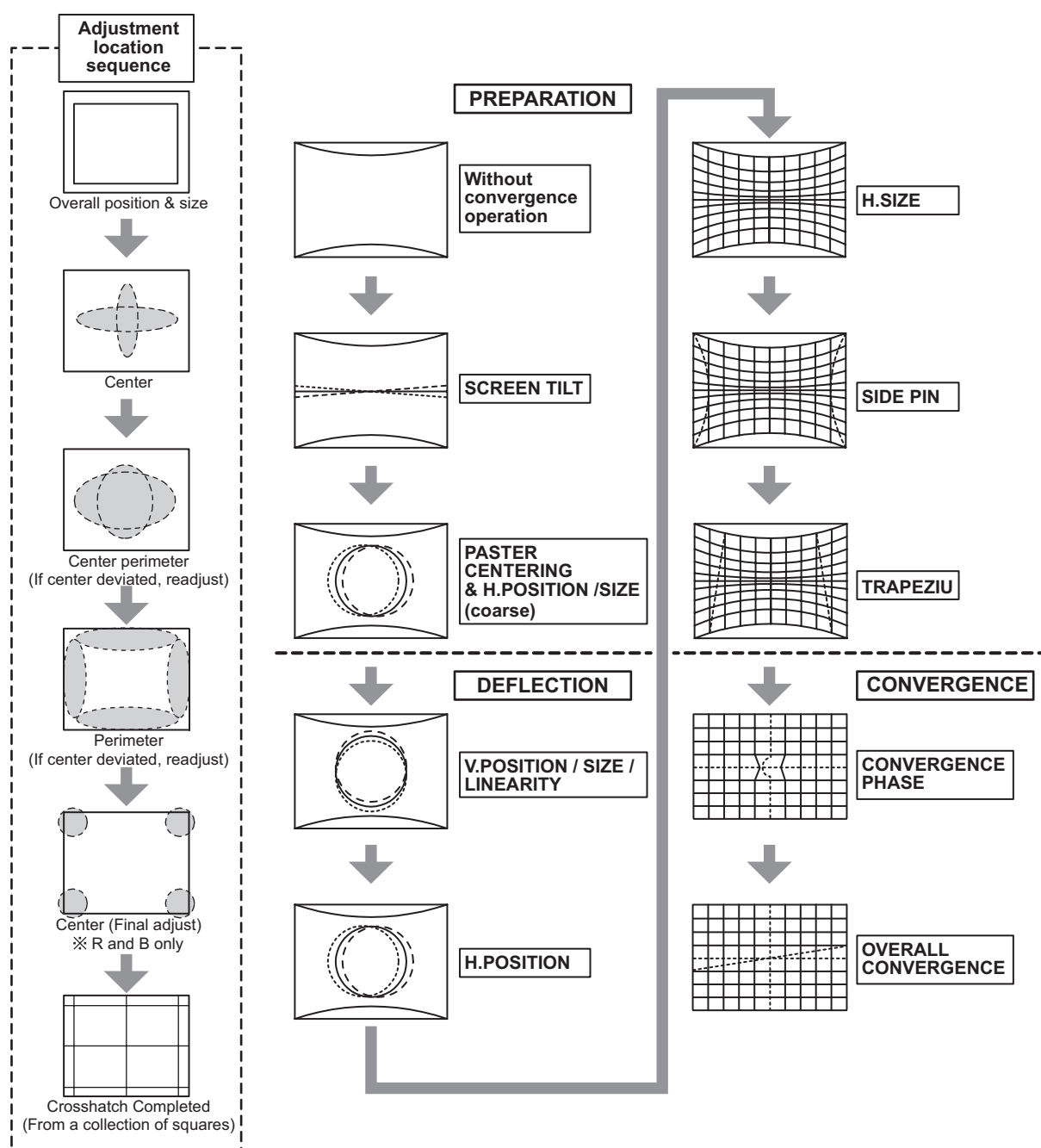
3.8.4.1 FLOWCHART OF ADJUSTMENT

CAUTION:

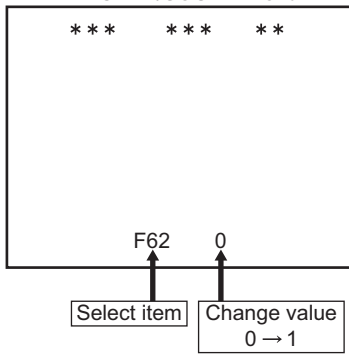
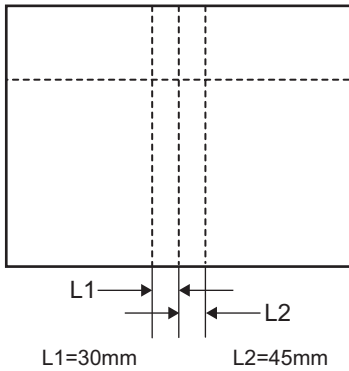
All adjustments of the DEFLECTION circuit for this model should be carried out under the status without convergence operation. To enter the mode without convergence operation, select 1.PICTURE/SOUND and change the data in the setting item F62 from 0 to 1. (For details, please refer to the adjustment of DEFLECTION.)

As a result, you can get the screen as shown in bellow figure. Adjust the DEFLECTION circuit in order of the steps indicated by the downward arrows.

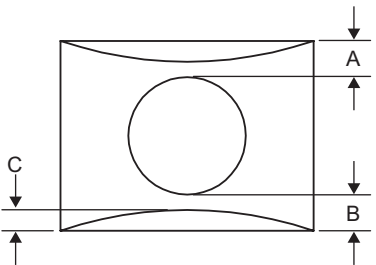
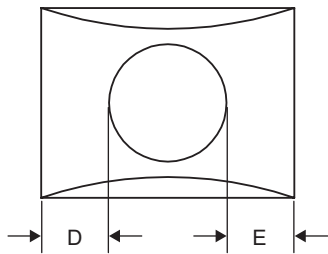
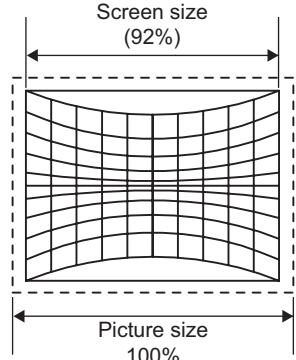
NOTE: When every adjustment of the DEFLECTION circuit has completed, start the adjustment of convergence.

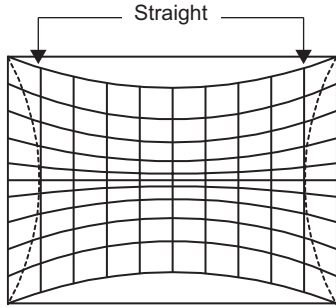
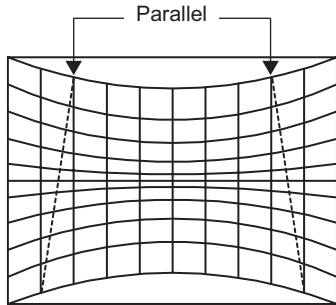


3.8.4.2 PREPARATION

Item	Measuring instrument	Test point	Adjustment part	Description
SCREEN TILT adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] F62 : Without convergence operation G DEF. YOKE R DEF. YOKE B DEF. YOKE [PROJECTION UNIT]	<ul style="list-style-type: none"> Confirm correct FOCUS adjustment. <ol style="list-style-type: none"> Receive NTSC cross-hatch signal. Select 1. PICTURE/SOUND from SERVICE MENU. Select <F62> (Without convergence operation) with [CH +] / [CH -] keys. Change the data 0 to 1, then it makes picture without convergence operation. Make a single green color. <p>NOTE : In order to make a single color, turn down other two SCREEN VRs or cover the other two lenses</p> <ol style="list-style-type: none"> Temporarily secure the G deflection yoke to the top of the neck and adjust the tilt of the deflection yoke so that the line at the center becomes horizontal. After adjustment, fasten the yoke screw. Adjust the tilt of the R and B deflection yokes in the same manner as for green. <p>NOTE : Make sure that the adjustment of CRT FOCUS is optimized at the center and at the fringe of the center in turn. If the proper adjustment has not been done, adjust FOCUS VR again.</p>
<p>1. PICTER/SOUND menu</p> 				
RASTER CENTERING & H. POSITION / SIZE (coarse) adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D03 : H. SIZE D14 : H. CENTER F62 : Without convergence operation G CENTERING magnet R CENTERING magnet B CENTERING magnet [DEF. YOKE]	<ol style="list-style-type: none"> Receive NTSC circle (or cross-hatch) signal. Select 1. PICTURE/SOUND from SERVICE MENU. Select <F62> (Without convergence operation) with [CH +] / [CH -] keys. Change the data 0 to 1, then it makes picture without convergence operation. Make a single green color. <p>NOTE : In order to make a single color, turn down other two SCREEN VRs or cover the other two lenses</p> <ol style="list-style-type: none"> Select <D03> (H. SIZE) and adjust its value to reduce the width until blanking on both sides can be seen. Select <D14> (H. CENTER) and adjust horizontal position to make the picture centered on the screen. Select <D03> and adjust horizontal size to make screen picture approx. 92% of H-SIZE. Press [MUTING] key and memorize the set value. Adjust G CENTERING magnet to make horizontal and vertical line center as mechanical center of screen. Turn ON the RED and BLUE guns Adjust the R CENTERING magnet until the RED vertical center line is positioned at (L1) and the horizontal center line is at the screen center. Adjust the B CENTERING magnet until the BLUE vertical center line is positioned at (L2) and the horizontal center line is at the screen center. After adjustment, select <F62> and change the data from 1 to 0.
<p>R G B</p>  <p>L1=30mm L2=45mm</p>				

3.8.4.3 DEFLECTION ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
V. POSITION / SIZE / LINEARITY adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D01 : V. SIZE D05 : V. LINE D06 : V. CENT F62 : Without convergence operation	<ul style="list-style-type: none"> To memorize every time after finish adjustment on each mode. (1) Receive NTSC circle pattern signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D01> (V. SIZE), <D05> (V. LINE), <D06> (V. CENT). (7) Adjust <D01>, <D05> and <D06> to make A = B (precision $\pm 2\text{mm}$), and adjust to make C = 55mm (AV-48WP74) / 75mm (AV-56WP74) (8) Press [MUTING] key and memorize the set value. <p>NOTE : Do not adjust <D04> (V. S-CORRECTION), if it is different vertical position after adjust vertical linearity, to adjust vertical position.</p>
				
H. POSITION adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D14 : H. CENTER F62 : Without convergence operation	<ul style="list-style-type: none"> (1) Receive NTSC circle pattern signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D14> (H. CENTER). (7) Adjust <D14> to make D = E as shown figure. (8) Press [MUTING] key and memorize the set value.
				
H. SIZE adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D03 : H. SIZE F62 : Without convergence operation	<ul style="list-style-type: none"> (1) Receive NTSC cross-hatch signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D03> (H. SIZE). (7) Adjust <D03> to make sure that the vertical screen size of the picture size is 92%. (8) Press [MUTING] key and memorize the set value.
				

Item	Measuring instrument	Test point	Adjustment part	Description
SIDE PIN adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D02 : EW D08 : BOT.CORN D09 : TOP.CORN F62 : Without convergence operation	<p>(1) Receive NTSC cross-hatch signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D02> (EW), <D08> (BOT.CORN), <D09> (TOP.CORN). (7) Adjust <D02>, <D08>, <D09> to make the vertical lines at the left and right edges of the screen straight. (8) Press [MUTING] key and memorize the set value.</p> <p>NOTE : After making adjustments, confirm that the horizontal position is properly adjusted. If the horizontal is out of alignment, readjust it. Adjust H SIZE & SIDE PIN reparably.</p>
				
TRAPEZIUM adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D07 : EW.TRAP F62 : Without convergence operation	<p>(1) Receive NTSC cross-hatch signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D07> (EW.TRAP). (7) Adjust <D07> to bring the vertical lines at the right and left edges of the screen parallel. (8) Press [MUTING] key and memorize the set value.</p> <p>NOTE : After making adjustments, confirm that the horizontal position is properly adjusted. If the horizontal is out of alignment, readjust it. Adjust H SIZE & SIDE PIN reparably.</p>
				

3.8.4.4 CONVERGENCE ADJUSTMENT(1) RGB together

Item	Measuring instrument	Test point	Adjustment part	Description
CONVERGENCE PHASE adjustment	Signal generator Remote control unit		[6.CONVER A] CPA03 : FINE H CPA04 : FINE V CPA05 : CAU V CPA07 : CAU H2	NOTE: Retain the default value of this adjustment. It is not necessary to carry out the adjustment unless the image on the screen is significantly deformative. If you performed this adjustment, open the user MENU "INITIAL SETUP" and execute AUTO of CONVERGENCE after the adjustment. (1) Receive NTSC cross-hatch signal. (2) Select 6.CONVER A from SERVICE MENU. (3) Select <CPA03> (FINE H). (4) Adjust the peak A as shown in Fig. 2 agrees with the horizontal center line by using [Volume +/-] keys. (5) Select <CPA04> (FINE V). (6) Adjust the peak B as shown in Fig. 3 agrees with the vertical center line by using [Volume +/-] keys. (7) Select <CPA05> (CAU V). (8) Adjust the intersection point of the horizontal center line and the vertical center line agrees with the screen center by using [Volume +/-] keys. (Fig.4) (9) Select < CPA07>(CAU H2). (10) Adjust the intersection point of the horizontal center line and the vertical center line agrees with the screen center by using [Volume +/-] keys. (Fig.5) (11) Press [MUTING] key to memorize the set values.
<div><div><div><div><div><div>Horizontal center line</div><div>Screen center</div><div>Vertical center line</div></div><div>Fig. 1:Screen center</div></div><div><div><div><div>Fig. 2:CPA03<FINE H> adj.</div><div>Fig. 3:CPA04<FINE V> adj.</div><div>Fig. 4:CPA05<CAU V> adj.</div><div>Fig. 5:CPA07<CAU H> adj.</div></div></div><div><div>REMOTE CONTROL KEY POSITION</div><div><div><div><div><div>TV CATV VCR</div><div>ASPECT</div><div>POWER</div></div><div><div>SPLIT</div><div>MULTI SCREEN</div><div>INDEX</div><div>EZ SURF</div></div><div><div>FREEZE</div><div>SWAP</div><div>SELECT</div></div></div><div><div>INPUT1</div><div>1</div><div>2</div><div>3</div></div><div><div>INPUT2</div><div>4</div><div>5</div><div>6</div></div><div><div>INPUT3</div><div>7</div><div>8</div><div>9</div></div><div><div>INPUT4</div><div>100H</div><div>RETURN+TV</div></div><div><div>DIGITAL IN</div><div>THEATER</div><div>NATURAL</div><div>VIDEO</div></div><div><div>SLEEP/TIMER</div><div>DISPLAY</div><div>SOUND</div><div>LIGHT</div></div><div><div>MUTING</div><div>CH</div><div>C.C.</div></div><div><div>VOL -</div><div>OK</div><div>VOL +</div></div><div><div>CH -</div><div>CH</div><div>CH +</div></div><div><div>MENU</div><div>BACK</div></div><div><div>VCR CHANNEL+</div><div>VCR CH-</div><div>POWER</div><div>TV/VCR</div></div><div><div>REW</div><div>PLAY</div><div>FF</div></div><div><div>REC</div><div>STOP</div><div>PAUSE</div></div><div><div>OPEN/CLOSE</div><div>STILL/PAUSE</div></div></div><div><div>JVC</div><div>RM-C1200G</div><div>TV</div></div></div><div><div>Number key</div><div>Screen center adjustment</div><div>[2] : Up</div><div>[4] : Left</div><div>[6] : Right</div><div>[8] : Down</div></div><div><div>CH+ / CH- keys</div><div>Adjustment item select</div><div>[CH +] : Up</div><div>[CH -] : Down</div></div></div></div></div></div></div>				

3.8.4.5 DEFLECTION ADJUSTMENT(2) RGB respectively

Item	Measuring instrument	Test point	Adjustment part	Description
OVERALL CONVERGENCE adjustment (1) [LINE]	Signal generator Remote control unit		[6.CONVER A] CPA08 : FINE OFF CCA01 : C H CENT CCA02 : C H SIZE CCA03 : C H LIN CCA05 : C EW PIN CCA09 : V SIZE CCA10 : V KEY CCA11 : TB PIN	NOTE: Retain the default value of this adjustment. It is not necessary to carry out the adjustment unless the image on the screen is significantly deformative. If you performed this adjustment, open the user MENU "INITIAL SETUP" and execute AUTO of CONVERGENCE after the adjustment. (1) Receive NTSC cross-hatch signal. (2) Select 6.CONVER A from SERVICE MENU. (3) Select <CPA08> (FINE OFF). (4) Change the data 0 to 1. (Clear the fine adjustment data) (5) Press [INPUT] key to select <CCA01> (C H CENT). Then a green cross-hatch pattern for adjustment will be displayed on the screen. (6) Make sure that the heavy lines as shown in figure are almost in alignment with the lines of the green cross-hatch pattern (refer to table). If the lines are out of alignment significantly, adjust <CCA02> (C H SIZE), <CCA03> (C H LIN), <CCA05> (C EW PIN), <CCA09> (V SIZE) and <CCA11> (TB PIN), respectively. (Refer to under figure) (7) Press [SELECT] key to change the adjusting color to red and blue, in turn, and make the adjustments in the same manner as for 6. above. *In adjustments for red and blue, the adjustment of <CCA10> (V KEY) is also available.

For this adjustment, it is necessary to use a remote control unit (e.g. RM-C322G) with INPUT key. In order to change the adjusting items, use INPUT key. When you press INPUT key, the adjusting items will change in the order of CPA ** → CCA ** → CBA** key.

Fourth lines from the horizontal center line right

Fourth lines from the vertical center line upward and downward.

	A1	A2	A3	A4	B1	B2	B3
AV-48WP74	1060	182	348	87	600	164	136
AV-56WP74	1240	213	407	102	700	192	159

SPAN TABLE (mm)

REMOTE CONTROL KEY POSITION

[RM-C322G]

INPUT key
-CPA ** → CCA ** → CBA **

MUTING key
For storing adjustment data in memory

OK key
For display colors change for adjusting

SELECT key
For adjusting color change

CH+ / CH- key
Item No. change
[CH+] : up
[CH-] : down

VOL+ / VOL- key
Setting value change
[VOL+] : up
[VOL-] : down

STRAIGHT

<CCA05> EW PIN

STRAIGHT

<CCA11> TB PIN

Item	Measuring instrument	Test point	Adjustment part	Description
OVERALL CONVERGENCE adjustment (2) [POINT]	Signal generator Remote control unit		[7.CONVER B]	<p>NOTE:</p> <p>Perform this adjustment after performing OVERALL CONVERGENCE adjustment (1).</p> <p>(1) Select 7.CONVER B from SERVICE MENU. Then appear green cross-hatch pattern for adjustment. (See Fig.1)</p> <p>(2) Press [2] / [4] / [6] / [8] key respectively, move the cursor to the adjusting point.</p> <p>(3) Press [CH+] / [CH-] / [VOL+] / [VOL-] key, adjust the position of the adjusting point so that it is located at the place as shown in Fig1.</p> <p>(4) Press [SELECT] key to select the red and blue cross-hatch patterns, respectively, and make convergence adjustments so that they align with the adjusting points of the green cross-hatch pattern (reference color).</p> <p>(5) Press [OK/ENTER] key to change the display colors to three colors from two colors (adjusting color + green) and make sure that the convergence has been aligned with each other.</p> <p>(6) Press [INPUT 2] or [INPUT] key. After changing the pattern to the fine grid cross-hatch pattern, make sure that the convergence has been adjusted properly.</p> <p>(7) Press [MUTING] key and memorize the set values.</p> <p>NOTE:</p> <p>Press [DISPLAY] key to view the adjustment data</p>

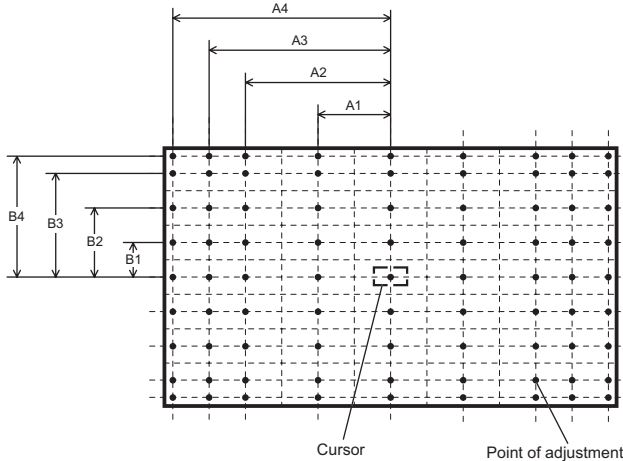


Fig.1
<CROSS-HATCH (H13 x V15 points) >

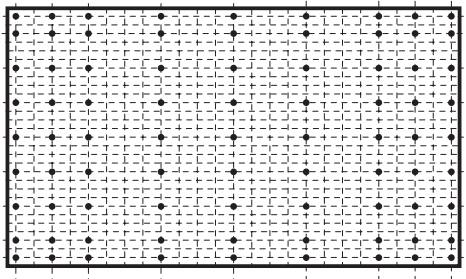
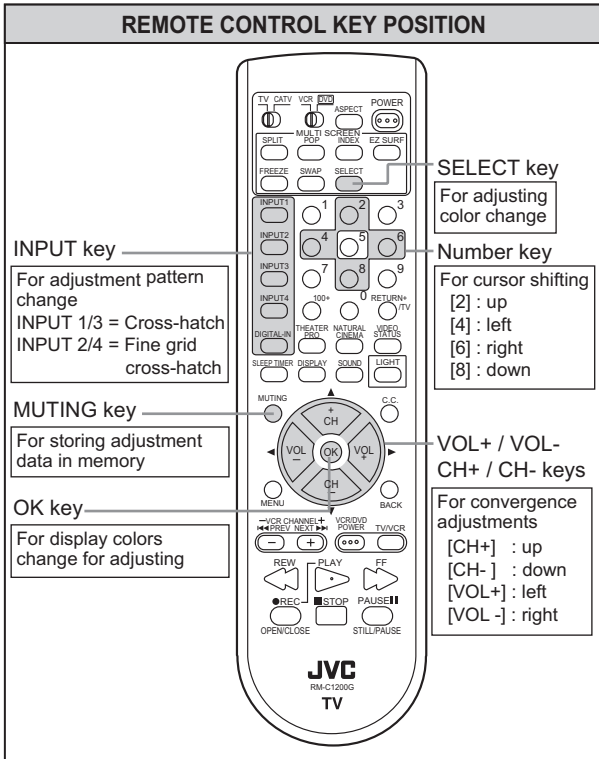


Fig.2
<FINE GRID CROSS-HATCH (H25 x V29 points) >

	A1	A2	A3	A4	B1	B2	B3	B4
AV-48WP74	174	348	435	522	82	164	246	287
AV-56WP74	204	407	509	611	96	192	287	335

SPAN TABLE (mm)

REMOTE CONTROL KEY POSITION



INPUT key
For adjustment pattern change
INPUT 1/3 = Cross-hatch
INPUT 2/4 = Fine grid cross-hatch

MUTING key
For storing adjustment data in memory

OK key
For display colors change for adjusting

SELECT key
For adjusting color change

Number key
For cursor shifting
[2] : up
[4] : left
[6] : right
[8] : down

VOL+ / VOL- CH+ / CH- keys
For convergence adjustments
[CH+] : up
[CH-] : down
[VOL+] : left
[VOL-] : right

3.8.5 VIDEO ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
A-D CONVERTER OFFSET adjustment (1)	Signal generator		[1.PICTURE/SOUND] F44 : Image adjustment F45 : Image adjustment of mode change F47 : Minimum value B at the time of detection F48 : Maximum value A at the time of detection [8.PP] ADM012 : R offset AMD013 : G offset AMD014 : B offset	[WHITE BALANCE LOW LIGHT ADJUSTMENT for SINGLE SCREEN] (1) Input the 480i (DVD) whole black signal from the COMPONENT VIDEO terminal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) Select FULL mode with [ASPECT] key. (4) Select 1.PICTURE / SOUND from SERVICE MENU. (5) It goes into the zero mode screen of difference adjustment of color, using <F44>(Image adjustment) as 0 to 1, and using <F45>(Image adjustment mode change) as 0 to 3. (6) Set <F47> (minimum value B at the time of detection) to 0 and <F48> (maximum value A at the time of detection) to 0. (7) Press [MUTING] key and memorize the set value. (8) Press [BACK] key and display SERVICE MENU screen again. (9) Select 8. PP from SERVICE MENU. (10) Adjust <ADM012> (R offset setup) and <ADM014> (B offset setup) so that the adjustment result out put screen in the upper half of a screen becomes black color.(Fig.1) (11) If the screen is reddish, adjust <ADM012>(R offset setup) so that the redness is reduced to the minimum. (12) If the screen is bluish, adjust <ADM014>(B offset setup) so that the blue is reduced to the minimum. (13) Press [MUTING] key and memorize the set value.
	Remote control unit			[BRIGHTNESS ADJUSTMENT for SPLIT RIGHT SCREEN] (1) Select STANDARD mode with [VIDEO STATUS] key. (2) Select FULL mode with [ASPECT] key. (3) Press [SPLIT] key to enter the SPLIT screen mode, then input gray scale signal on both left and right channels. (4) Select 1.PICTURE/SOUND from SERVICE MENU. (5) It goes into the Y adjustment MAX mode, using <F45> as 0 and using <F46> as 0 to 1. (6) Set <F47> to 16 and <F48> to 16. (7) Press [MUTING] key and memorize the set value. (8) Press [BACK] key and display the SERVICE MENU. (9) Select 8. PP from SERVICE MENU. (10) Adjust <ADM013> (G offset setup) so that the screen on the right upper side becomes slightly whitish rather (6% black) than whole black.(Fig.2) (11) Press [MUTING] key and memorize the set value.

Upper side of screen
whole black



Fig. 1 <FULL screen>

To be slightly whitish
rather than whole black

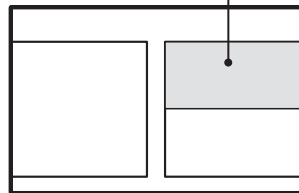
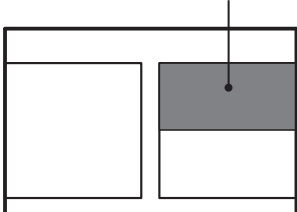
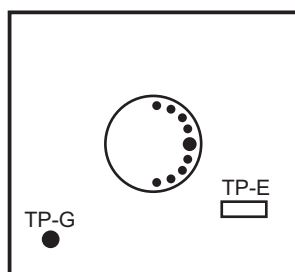


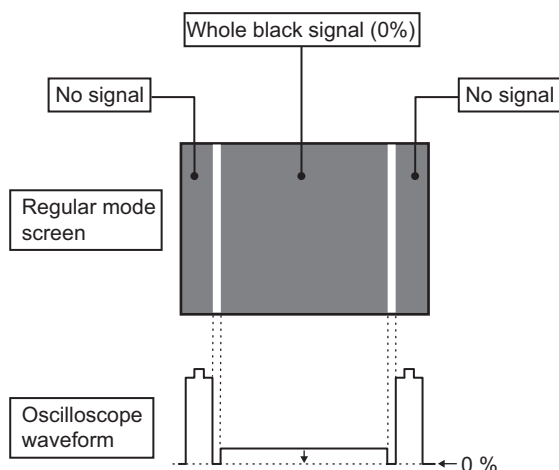
Fig. 2 <SPLIT screen>

Item	Measuring instrument	Test point	Adjustment part	Description
A-D CONVERTER OFFSET adjustment (2)	Signal generator Remote control unit		[1.PICTURE/SOUND] F44 : Image adjustment F45 : Image adjustment of mode change F47 : Minimum value B at the time of detection F48 : Maximum value A at the time of detection [8.PP] ADM012 : R offset AMD013 : G offset AMD014 : B offset	[WHITE BALANCE LOW LIGHT ADJUSTMENT for SPLIT RIGHT SCREEN] (1) Press [SPLIT] key to enter the SPLIT screen mode. (2) Select STANDARD with [VIDEO STATUS] key. (3) Select FULL mode with [ASPECT] key. (4) Select 1 PICTURE SOUND from SERVICE MENU. (5) It goes into the zero mode screen of difference adjustment of color, using <F45>(Image adjustment mode change) as 0 to 3 and <F44>(Image adjustment) as 0 to 1. (6) Set <F47> (minimum value B at the time of detection) to 0 and <F48> (minimum value A at the time of detection) to 0. (7) Press [MUTING] key and memorize the set value. (8) Press [BACK] key and back to SERVICE MENU. (9) Select 8.PP from SERVICE MENU. (10) Adjust <ADM012> (R offset setup) and <ADM014> (G offset setup) so that right upside screen becomes whole black. (11) Press [MUTING] key and memorize the set value. (12) Select 1.PICTURE/SOUND from SERVICE MENU. (13) Change the data of <F44> 1 to 0 and <F45> 3 to 0. (14) Press [MUTING] key and memorize the set value.
<div><p>Whole black</p><p>Fig. 3 <SPLIT screen></p></div>				

Item	Measuring instrument	Test point	Adjustment part	Description
RGB CUTOFF adjustment	Signal generator	TP-R [R CRT SOCKET PWB]	[1.PICTURE/SOUND] S14: CUTOF R	(1) Receive NTSC whole black (0%) signal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) Select REGULAR mode with [ASPECT] key. (4) The COLOR TEMP set at the LOW mode. (5) Connect the oscilloscope to TP-G on the G CRT SOCKET PWB. (6) Select 1.PICTURE/SOUND from SERVICE MENU. (7) Select <S16> (CUTOF G). (8) Adjust <S16> so that the central 0% signal portion and the non-signal portion of both sides may become the same voltage. (9) Press [MUTING] key and memorize the set value. (10) Receive 480i component whole black (0%) signal. (11) Set <S16> data same as memorized NTSC <S16> data. (12) Set 1080i component whole black (0%) signal. (13) Set <S16> data same as memorized NTSC <S16> data. (14) Connect the oscilloscope to TP-R <S14> (CUTOF R) and adjust same manner as for 6. ~ 13. above. (15) Connect the oscilloscope to TR-B <S18> (CUTOF B).and adjust same manner as for 6. ~ 13. above. (16) Adjust SCREEN VR for RGB respectively, so that the black (3%) becomes faintly whitish.
	Oscilloscope Remote control unit	TP-G [G CRT SOCKET PWB] TP-B [B CRT SOCKET PWB]	R SCREEN VR G SCREEN VR B SCREEN VR [FOCUS PACK]	



CRT SOCKET PWB

**NOTE :**

If it is difficult to adjust the SCREEN precisely, adjust the SCREEN VR for one of three colors while masking other two colors.

Item	Measuring instrument	Test point	Adjustment part	Description																																				
WHITE BALANCE (LOW LIGHT) adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] S14: CUTOF R S16: CUTOF G S18: CUTOF B S20: CUTOF SW R S21: CUTOF SW G S22: CUTOF SW B	(1) Receive NTSC black & white pattern signal (color off). (2) Select STANDARD mode with [VIDEO STATUS] key. (3) The COLOR TEMP is set at the LOW mode. (4) Select 3.WHITE BALANCE from SERVICE MENU. (5) Increase bright level to confirm LOW-LIGHT with [VOL +] key. (6) Adjust using [0] / [8] (R CUTOFF), [RETURN /] [9] (B CUTOFF) key so that a black portion may become black. (7) Press [MUTING] key and memorize the set values. (8) Input 480i component black & white pattern signal from COMPONENT VIDEO terminal. (9) Repeat steps 5 ~ 7 above. (10) Input 1080i component black & white signal from COMPONENT VIDEO terminal. (11) Repeat steps 5 ~ 7 above. NOTE : Before starting the adjustment, warm up the unit for more than 30 minutes.																																				
<div>3. WHITE BALANCE</div> <div><div><div>BRIGHT LEVEL</div><div>DRIVE</div><div>CUTOFF</div></div><div><div>BR ***</div><div>DRV R*** B***</div><div>CUT R*** G*** B***</div></div></div> <div><div>Setting value</div></div> <div>SETTING VALUE</div> <div>NTSC</div> <table><tr><td>BR</td><td>133</td><td></td><td></td></tr><tr><td>DRV</td><td>R 073</td><td>B 060</td><td></td></tr><tr><td>CUT</td><td>R 188</td><td>G 149</td><td>B 215</td></tr></table> <div>480i</div> <table><tr><td>BR</td><td></td><td></td><td></td></tr><tr><td>DRV</td><td>R 074</td><td>B 058</td><td></td></tr><tr><td>CUT</td><td>R 194</td><td>G 149</td><td>B 210</td></tr></table> <div>1080i</div> <table><tr><td>BR</td><td></td><td></td><td></td></tr><tr><td>DRV</td><td>R 074</td><td>B 058</td><td></td></tr><tr><td>CUT</td><td>R 195</td><td>G 149</td><td>B 210</td></tr></table> <div>REMOTE CONTROL UNIT</div> <div><div><div>①</div><div>②</div><div>EXIT ③</div></div><div><div>R CUTOFF▲</div><div>G CUTOFF▲</div><div>B CUTOFF▲</div></div><div><div>④</div><div>⑤</div><div>⑥</div></div><div><div>R CUTOFF▼</div><div>G CUTOFF▼</div><div>B CUTOFF▼</div></div><div><div>⑦</div><div>⑧</div><div>⑨</div></div><div><div>OSD ON/OFF</div><div>⑩</div></div></div>					BR	133			DRV	R 073	B 060		CUT	R 188	G 149	B 215	BR				DRV	R 074	B 058		CUT	R 194	G 149	B 210	BR				DRV	R 074	B 058		CUT	R 195	G 149	B 210
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Item	Measuring instrument	Test point	Adjustment part	Description																										
WHITE BALANCE (HIGH LIGHT) adjustment	Signal generator		[1.PICTURE/SOUND] S10: DRIVE R S12: DRIVE B	(1) Receive NTSC black & white signal (color off). (2) Select STANDARD mode with [VIDEO STATUS] key. (3) The COLOR TEMP is set at LOW mode. (4) Select 1.PICTER/SOUND from SERVICE MENU. (5) Select <S10> (DRIVE R) or <S12> (DRIVE B). (6) Adjust <S10> or <S12> so that the natural white should be visible. (7) Press [MUTING] key and memorize the set values. (8) Input 480i component black & white signal from COMPONENT VIDEO terminal. (9) Repeat steps 5 ~ 7 above. (10) Input 1080i component black & white signal from COMPONENT VIDEO terminal. (11) Repeat steps 5 ~ 7 above.																										
	Remote control unit																													
<div>1. PICTUER/SOUND</div> <div><div>NTSC FULL DA H FL MUTE</div><div>Setting Item — S10 DRIVE R *** — Setting value</div></div> <div>INITIAL SETTING VALUE</div> <table><tr><th rowspan="2">Signal Item</th><th colspan="3">Setting value</th></tr><tr><th>NTSC</th><th>480i</th><th>1080i</th></tr><tr><td>S10</td><td>073</td><td>074</td><td>074</td></tr><tr><td>S12</td><td>060</td><td>058</td><td>058</td></tr></table>				Signal Item	Setting value			NTSC	480i	1080i	S10	073	074	074	S12	060	058	058												
Signal Item	Setting value																													
	NTSC	480i	1080i																											
S10	073	074	074																											
S12	060	058	058																											
SUB BRIGHT adjustment	Signal generator		[1.PICTURE/SOUND] S03: BRIGHT	(1) Receive NTSC black & white signal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) The COLOR TEMP is set at the LOW mode. (4) Select 1.PICTURE/SOUND from SERVICE MENU. (5) Select <S03> (BRIGHT). (6) Set initial setting value. (See Table) (7) If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. (8) Press [MUTING] key and memorize the set values. (9) Select THEATER mode with [VIDEO STATUS] key. (10) Select 1.PICTURE/SOUND from SERVICE MENU. (11) Select <S03>. (12) Set initial setting value. (See Table) (13) If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. (14) Press [MUTING] key and memorize the set values. (15) Input 480i component black & white signal from COMPONENT VIDEO terminal. (16) Repeat steps 2 ~ 14 above. (17) Input 1080i component black & white signal from COMPONENT VIDEO terminal. (18) Repeat steps 2 ~ 14 above.																										
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<div>Signal</div> <table><tr><th rowspan="2">Item</th><th colspan="6">Setting value</th></tr><tr><th colspan="2">NTSC</th><th colspan="2">480i</th><th colspan="2">1080i</th></tr><tr><td rowspan="2">S03</td><td>STANDARD</td><td>THEATER</td><td>STANDARD</td><td>THEATER</td><td>STANDARD</td><td>THEATER</td></tr><tr><td>131</td><td>121</td><td>130</td><td>129</td><td>130</td><td>130</td></tr></table>				Item	Setting value						NTSC		480i		1080i		S03	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER	131	121	130	129	130	130	
Item	Setting value																													
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S03	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER																								
	131	121	130	129	130	130																								

Item	Measuring instrument	Test point	Adjustment part	Description																										
SUB CONTRAST adjustment	Signal generator		[1.PICTURE/SOUND] S04: CONTRAST	(1) Receive NTSC black & white signal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) The COLOR TEMP is set at the LOW mode. (4) Select 1.PICTURE/SOUND from SERVICE MENU. (5) Select <S04> (CONTRAST). (6) Set Initial setting value. (See Table) (7) If the contrast is not the best with the initial setting value, make fine adjustment of the <S04> until you get the optimum contrast. (8) Press [MUTING] key and memorize the set values. (9) Select THEATER mode with [VIDEO STATUS] key. (10) Select 1.PICTURE/SOUND from SERVICE MENU. (11) Select <S04>. (12) Set Initial setting value. (See Table) (13) If the contrast is not the best with the initial setting value, make fine adjustment of the <S04> until you get the optimum contrast. (14) Input 480i component black & white signal from COMPONENT VIDEO terminal. (15) Repeat steps 2 ~ 13 above. (16) Receive 1080i component black & white signal from COMPONENT VIDEO terminal. (17) Repeat steps 2 ~ 13 above.																										
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<table><tr><th rowspan="2">Signal Item</th><th colspan="6">Setting value</th></tr><tr><th colspan="2">NTSC</th><th colspan="2">480i</th><th colspan="2">1080i</th></tr><tr><th rowspan="2">S04</th><th>STANDARD</th><th>THEATER</th><th>STANDARD</th><th>THEATER</th><th>STANDARD</th><th>THEATER</th></tr><tr><td>052</td><td>045</td><td>065</td><td>046</td><td>065</td><td>044</td></tr></table>					Signal Item	Setting value						NTSC		480i		1080i		S04	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER	052	045	065	046	065	044
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	NTSC		480i		1080i																									
S04	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER																								
	052	045	065	046	065	044																								
SUB COLOR / SUB TINT / B-Y GAIN adjustment (1)	Signal generator	TP-R TP-B TP-E (GND)	[1.PICTURE/SOUND] S01 : COLOR S02 : TINT S07 : B-Y	[Method of adjustment without measuring instrument] (1) Receive NTSC color bar signal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) Select 1.PICTURE/SOUND from SERVICE MENU. (4) Select <S01> (COLOR) or <S02> (TINT). (5) Set the initial setting values. (6) If the color or tint is not the best with the initial setting values, make fine adjustment until you get the best color or the best tint. (7) Select <S07> (B-Y). (8) Set the initial setting values. (9) If the color bar is not clearly with the initial setting value, make fine adjustment until you get the clearly color bar. (10) Press [MUTING] key and memorize the set values. (11) Select THEATER mode with [VIDEO STATUS] key. (12) Select <S01> or <S02> . (13) Set the initial setting values. (14) If the color or tint is not the best with the initial setting values, make fine adjustment until you get the best color or the best tint. (15) Select <S07>. (16) Set the initial setting values. (17) If the color bar is not clearly with the initial setting value, make fine adjustment until you get the clearly color bar. (18) Press [MUTING] key and memorize the set values. (19) Input 480i component color bar signal from COMPONENT VIDEO terminal. (20) Repeat steps 2 ~ 18 above. (21) Input 480p component color bar signal from COMPONENT VIDEO terminal. (22) Repeat steps 2 ~ 18 above. (23) Input 1080i component color bar signal from COMPONENT VIDEO terminal. (24) Repeat steps 2 ~ 18 above.																										
	Remote control unit																													

Item	Measuring instrument	Test point	Adjustment part	Description
SUB COLOR / SUB TINT / B-Y GAIN Adjustment (2)	Signal generator	TP-R	[1.PICTURE/SOUND] S01 : COLOR S02 : TINT S07 : B-Y	[Method of adjustment with measuring instrument] (1) Receive NTSC color bar signal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) Connect the oscilloscope to TP-R on the R CRT SOCKET PWB. (4) Select 1.PICTURE/SOUND from SERVICE MENU. (5) Select <S01> (COLOR) or <S02> (TINT). (6) Adjust <S01> and <S02> to be following setting value A[V]. (Refer to the bellow table) (7) Press [MUTING] key and memorize the set values. (8) Select THEATER mode with [VIDEO STATUS] key. (9) Adjust <S01> and <S02> to be following setting value B[V] same as above. (Refer to the bellow table) (10) Press [MUTING] key and memorize the set values. (11) Select STANDARD mode with [VIDEO STATUS] key. (12) Connect the oscilloscope to TP-B on the B CRT SOCKET PWB. (13) Adjust <S07> (B-Y) to be setting value C[V]. (Refer to the bellow table) (14) Press [MUTING] key and memorize the set values. (15) Select THEATER mode with [VIDEO STATUS] key. (16) Adjust <S07> to be setting value D[V]. (Refer to the bellow table) (17) Press [MUTING] key and memorize the set values. (18) Confirm that LOW-LIGHT is not different after adjusting COLOR, TINT and B-Y GAIN. If it is green or magenta, to adjust LOW-LIGHT again. If adjust again, to set offset value again. (19) Press [MUTING] key and memorize the set values. (20) Input 480i component color bar from COMPONENT VIDEO terminal. (21) Repeat steps 2 ~ 19 above. (22) Input 480p component color bar from COMPONENT VIDEO terminal. (23) Repeat steps 2 ~ 19 above. (24) Input 1080i component color bar from COMPONENT VIDEO terminal. (25) Repeat steps 2 ~ 19 above.
	Oscilloscope	TP-B TP-E (GND)		
	Remote control unit			

Fig.1

Fig.2

Setting item	Setting value A [V]		Setting value B [V]		Setting value C [V]	Setting value D [V]
	STANDARD		THEATER		STANDARD	THEATER
	S01 (W-R)	S02 (W-Y)	S01 (W-R)	S02 (W-Y)	S07 (W-B)	S07 (W-B)
NTSC	+28	+14	+19	+7	+10	+18
480i	+19	+11	+7	+1	-17	+2
480p	+19	+14	+11	+2	-25	+12
1080i	+7	+6	+5	+7	-24	-9

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL check	Remote control unit		[1.PICTURE/SOUND] A01 : IN LEVEL	(1) Select 1.PICTURE / SOUND from SERVICE MENU. (2) Select <A01> (IN LEVEL). (3) Verify that<A01> is set at its initial setting value.
MTS SEPARATION adjustment	TV audio multiplex signal generator Oscilloscope Remote control unit	AUDIO OUT L output R output	[1.PICTURE/SOUND] A02: LOW SEP. A03 : HI SEP.	(1) Input stereo L signal (300Hz) from the TV audio multiplex signal generator to the antenna terminal. (2) Connect an oscilloscope to L OUTPUT pin of the AUDIO OUT, and display one cycle portion of the 300Hz signal. (3) Change the connection of the oscilloscope to R OUTPUT pin of the AUDIO OUT, and enlarge the voltage axis. (4) Select <A02> (LOW SEP.). (5) Set the initial setting value of <A02>. (6) Adjust <A02> so that the stroke element of the 300Hz signal will become minimum. (7) Change the signal to 3kHz, and similarly adjust <A03> (HI SEP.).

L-Channel
signal waveform

R-Channel
crosstalk portion

1 cycle

Minimum