

4-2. Camera Section Adjustment

Note :

1. This system has :

- 1) EEPROM to store the confirmed adjustment data.
- 2) DSP (Digital Signal Process ; ICP01 - Main board) chip to process the signal of camera parts.
- 3) One test point for the frequency adjustment of DSP main clock (P. CLK).
- 4) The special mode for camera adjustment using the remote controller.

2. Keep in mind :

- 1) All adjustment steps should be performed using the remote controller.

4-2-1 Preparations

1. Equipment to be used :

- 1) DC Power supply
- 2) Oscilloscope
- 3) Frequency counter
- 4) Vectorscope
- 5) Waveform monitor
- 6) Color monitor or TV
- 7) Various charts
 - Color bar chart
 - Gray-scale chart, etc...

2. Composition of camera P.C.Boards :

- 1) Main PCB
- 2) CCD PCB
- 3) CVF PCB
- 4) EVF PCB
- 5) LCD PCB

3. Adjustment preparations :

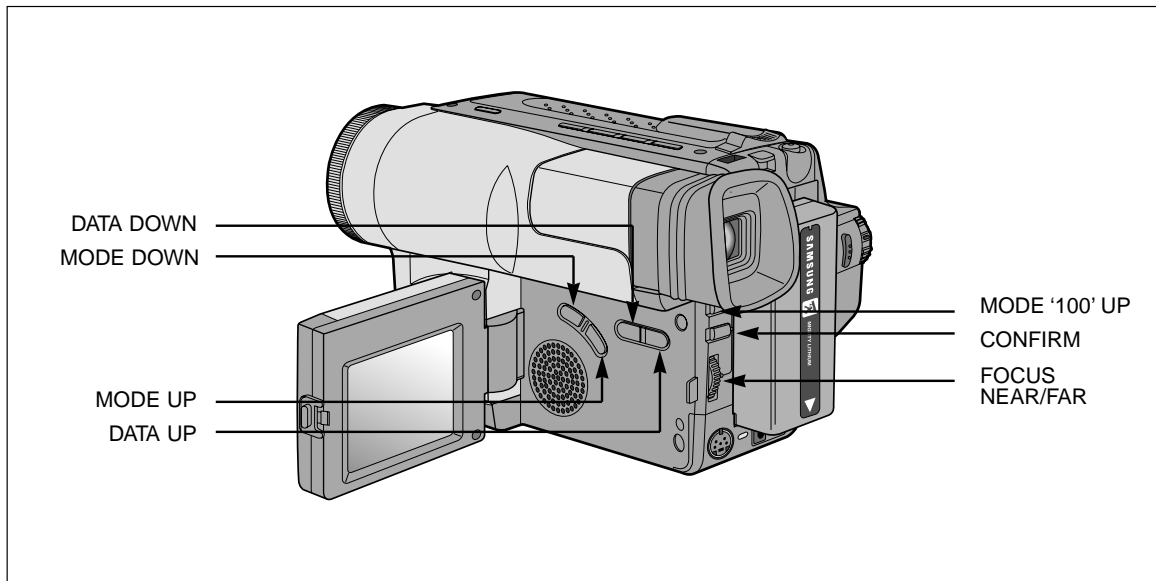
- 1) Some buttons of set is used as a camera adjust tool.
- 2) Press the confirm button when each manual adjustment step is completed to write the adjustment data to the EEPROM.
- 3) After each adjustment step is completed, OSD shows "OK!".
- 4) To cancel the adjustment mode, remove the power source.

4. Remote control :

The following is a chart explaining the use of each button :

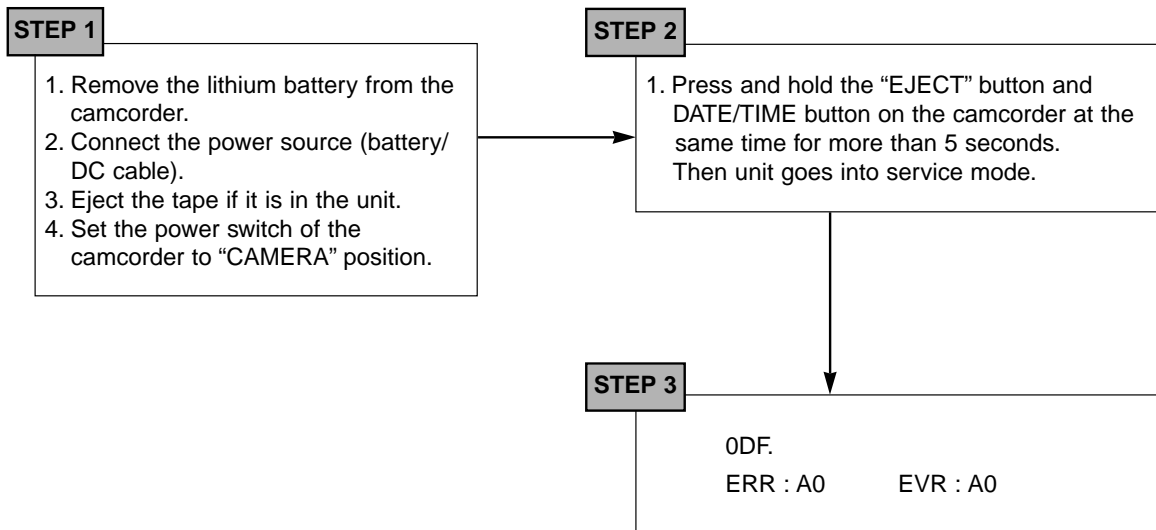
Using Button	Adjustment
ENTER (CONFIRM)	Data store after finishing adjustment by DATA UP/DOWN button.
P.AE (DATA UP) DSE (DATA DOWN)	When change data value of adjust state.
BLC (MODE UP) FADE (MODE DOWN) MENU ON/OFF (MODE UP '100')	Mode change.(One step or 100 step)
MANUAL FOCUS RING (NEAR/FAR)	Manual focus adjustment.
ZOOM TELE ZOOM WIDE	1) Move the zoom position of lens. 2) Semi-Auto lens adjustment.

Some buttons are changed for Service Adjustment.



Note : In service adjustment mode, button names are different from those in customer camera function control mode. EX) ENTER button is the same as confirm.

5. How to get into service “ADJUST” mode



Note : When “XX XX” is shown in service adjustment procedures, this indicates variable values.

“CAMERA ADJUST MODE, EEPROM ADDRESS SEQUENCE & DATA OF PAGE 0”

CAMERA AUTO ADJUST MODE					CONTENT								
0DF	A0	-	-	-	;EEPROM -TABLE -INITIAL (CAMERA ONLY:'99'+CONFIRM =EXCEPT(#061-#067,#680-#7FF),"								
0CD	FF	-	-	-	;HALL AUTO ADJUST 'AA'=ALL DATA INITIAL)								
0CE	FF	-	-	-	;IRIS AUTO ADJUST								
0CF	FF	-	-	-	;W/B AUTO ADJUST								
0D0	FF	-	-	-	;LENS AUTO ADJUST(WARNING! DON'T'S USE WITHOUT AN INFINITE COLLIMATOR)								
0D6	FF	-	-	-	;ZOOM VR CENTER ADJT								
0DB	FF	-	-	-	;AGC AUTO ADJUST(NORMALLY NOT USED)								
0DE	FF	-	-	-	;3M LENS AUTO ADJUST AT SERVICE FIELD(DISTANCE :3M +/- 1Cm)								
NO-OSD-DISPLAY					DISTANCE								
ADDR	MODEL/DATA				CONTENT								
	NTSC		PAL										
	H18	NOR	H18	NOR	D7	D6	D5	D4	D3	D2	D1	D0	
000	00	01	02	03	; 00=NTSC H18, 01=NTSC NORMAL, 02=PAL H18, 03= PAL NORMAL								
001	C6	46	C6	46	; DIS MODEL="C6" , NON-DIS MODEL="46"								
		46		46	NON-DIS MODEL="46" , DIS MODEL="C6" ,								
002	67	-	-	-	; @IRIS CONTROL-LOW								
003	A5	-	-	-	; @IRIS CONTROL-HIGH								
004	70	-	-	-	; @P.CLK PWM-HIGH (ADCLK ;PAL H18:14.250MHz, PAL-normal: 9.494800MHz NTSC:9.534964MHz)								
005	08	-	-	-	; UPD16879 INIT 4th								
006	44	-	-	-	; UPD16879 INIT 6th focus								
007	44	-	-	-	; UPD16879 INIT 7th zoom								
008	03	-	-	-	; CDS F-REG(f1,f0) CAM : BIT0:f0,BIT1:f1								
009	B0	-	-	-	; CDS F-REG(f9,f2) CAM ;PGA GAIN -HIGH(0.00dB~ 30.0dB) CCD WHITE DEFECT DETECT AGC								
00A	75	-	-	-	; CDS G-REG CAM ;DAC1 INPUT(HALL REFERENCE CONTROL:0V~3.0V)								
00B	3D	-	-	-	; CDS H-REG CAM ;DAC2 INPUT(HALL GAIN CONTROL:0V~3.0V)								
00C	85	-	-	-	; CDS E-R(e1,e0),J-R(j0),M-R;D0:e0,D1:e1,D2:j0(CAM),D4:e0,D5:e1,D6:j0(VCR),D7:cds-rev='1'								
00D	50	-	-	-	; CDS F-REG(f9,f2) VCR COLOR ;PGA GAIN H18 ME								
00E	02	-	-	-	; CDS IC A REG AT VCR MODE								
00F	1C	-	-	-	; CDS TE-R (D0:T-R D9 set='0'=offset=E-R,'1'=offset=#010(d0~d5: add111: d4~d9),D1:T-R								
010	30	-	-	-	; CDS OFFSET (#00F: D0='1' OFFSET VALUE) d3,D2D3=C0C1(CAM), D4D5=C0C1(VTR)								
011	00	00	01	01	; VNTPAL2_H ccd vertical effective line								
012	F7	F6	23	23	; VNTPAL2_L ccd vertical effective line								
013	01	00	01	00	; HNTPAL2_H ccd horizontal effective pixel								
014	80	FF	78	FA	; HNTPAL2_L ccd horizontal effective pixel								
015	D2	D2	D2	2D	; PHG hg phase : DZOOM - EEPROM #296 CONTROL								
016	01	-	-	-	; Mpoint_H mirror point h : MIRROR- EEPROM #336								
017	74	-	-	-	; Mpoint_L mirror point h : MIRROR- EEPROM #337								
018	A0	-	D0	D0	; AE TARGET-LOW BYTE (NON-DIS)								
019	05	-	05	05	; AE TARGET-HIGH BYTE (NON-DIS)								
01A	70	-	-	-	; DIS AE TARGTE LOW								
01B	0B	0B	0B	0B	; DIS AE TARGET HIGH								
01C	80	-	-	-	; FLEX ZONE AE TARGET PERCENT(80H= AUTO TARGET)								
01D	B0	B0	B0	88	; SPOT LIGHT AE TARGET PERCENT(DIS: B0 , NON-DIS: 88)								
01E	98	98	98	98	; BLC ON AE TARGET PERCENT(DIS: 80 , NON-DIS: 77)								
01F	98	98	98	98	; SAND SNOW AE TARGET PERCENT(DIS: 90 , NON-DIS: 88)								
020	60	-	-	-	; NEGA BLC AE TARGET PERCENT(80H= AUTO TARGET)								
021	08	05	-	05	; AGC =#022 VALUE :#22F- H ENHANCER MIN								
022	00	-	-	-	; AGC =#022 VALUE :#237- V ENHANCER MIN								
023	E5	-	-	-	; AGC MAX % (E5=90%) FOR H,V ENHANCER MIN (#021,022)								
024	80	-	-	-	; IRIS CONTROL GAIN '80'=CENTER								
025	38	-	-	-	; SHUTTER START POINT OF IRIS CONTROL PERCENT(FF=100% IRIS OPEN)								
026	A0	-	-	-	; AGC AETRGET PERCENT(=AETARGET*(#026/100hex)								

Alignment and Adjustment

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
HI8	NOR	HI8	NOR									
027	90	-	-	-	; DIGITAL CLAMP CONTROL START AGC							
028	A0	A0	A0	A0	; CHROMA SUPPRESS PERCENT (00h=supress max,40h=25%,80h=50%)							
029	48	-	-	-	; CHROMA SUPPRESS START AGC VALUE							
02A	48	-	-	-	; NOISE SLICE START AGC VALUE							
02B	80	-	-	-	; SHUTTER CONTROL GAIN '80'=CENTER							
02C	80	-	-	-	; AGC CONTROL GAIN '80'=CENTER							
02D	30	-	38	-	; DIS AE AVERAGE CUTTING AT AUTO MODE							
02E	40	-	48	-	; DIS AE AVERAGE CUTTING AT SPLOTLIGHT MODE							
02F	30	-	38	-	; DIS AE AVERAGE CUTTING AT FLEXZONE MODE							
030	40	-	-	-	; CDS F-REG(f9,f2) VCR COLOR ;PGA GAIN HI8 MP;NORMAL							
031	08	0B	-	0B	; AGC H CORE LEVEL							
032	08	0B	-	0B	; AGC V CORE LEVEL							
033	12	-	-	-	; AGC GAMMA							
034	01	-	01	01	; OUTDOOR(5100K) R-Y GAIN -HIGH						OUTDOOR COLOR	
035	10	23	3B	42	; OUTDOOR(5100K) R-Y GAIN -LOW						OUTDOOR COLOR	
036	00	-	00	00	; OUTDOOR(5100K) B-Y GAIN -HIGH						OUTDOOR COLOR	
037	A0	B4	E5	C8	; OUTDOOR(5100K) B-Y GAIN -LOW						OUTDOOR COLOR	
038	01	-	01	01	; OUTDOOR(5100K) R, Mg HUE -HIGH						OUTDOOR COLOR	
039	30	2A	50	48	; OUTDOOR(5100K) R, Mg HUE -LOW						OUTDOOR COLOR	
03A	00	01	00	00	; OUTDOOR(5100K) G, Cy HUE -HIGH						OUTDOOR COLOR	
03B	0A	2A	01	13	; OUTDOOR(5100K) G, Cy HUE -LOW						OUTDOOR COLOR	
03C	01	-	01	01	; OUTDOOR(5100K) B, Cy, Mg HUE -HIGH						OUTDOOR COLOR	
03D	52	2B	70	60	; OUTDOOR(5100K) B, Cy, Mg HUE -LOW						OUTDOOR COLOR	
03E	01	-	01	01	; OUTDOOR(5100K) Ye, G HUE -HIGH						OUTDOOR COLOR	
03F	2A	28	40	3B	; OUTDOOR(5100K) Ye, G HUE -LOW						OUTDOOR COLOR	
040	64	-	-	-	; WB DASH(WAITING TIME :UPPER 4BIT, SPEED:.,LOWER 4BIT)							
041	43	43	42	52	; BTRK1X: R GAIN TRACKING CURVE							
042	C6	-	-	-	; WBSPEED							
043	A0	A0	AC	AA	; RBCMAX0							
044	9A	9A	95	95	; MGCMAX0							
045	3E	3E	3D	3E	; RBCMIN0							
046	6A	6A	60	69	; MGCMIN0							
047	30	-	-	-	; RBRESP IGNORE AREA(R-B)							
048	30	-	-	-	; MGRESP IGNORE AREA(Mg-G)							
049	8E	8E	94	94	; CW_LEV_BF B XIAS WHITE DETECT AREA INI. VALUE(5100K)							
04A	94	94	9C	9A	; CW_LEV_GF G XIAS WHITE DETECT AREA INI. VALUE(5100K)							
04B	20	20	1A	1A	; CW_LEV_RF R XIAS WHITE DETECT AREA INI. VALUE(5100K)							
04C	00	-	-	-	; CW_LEV_MF M XIAS WHITE DETECT AREA INI. VALUE(5100K)							
04D	08	-	-	-	; AWB_STAB AWB STABLEMODE COUNTER UPPER LIMIT							
04E	00	-	-	-	; HIGH TEMPERTURE CONSIDERABLE RANGE CHANGE-RATE(R XIAS)							
04F	80	-	-	80	; LIKEWARM/LIKECOOL							
050	06	-	-	06	; R-B OFFSET DEC, INI- VALUE							
051	05	-	-	05	; Mg-G OFFSET DEC INI- VALUE							
052	40	-	-	-	; OUTS_RBN :HIGH TEMPERTURE CONSIDERABLE RANGE CHANGE-RATE(R XIAS)							
053	0C	-	-	-	; OUTS_MG :GREEN LIGHT SOURCE CONSIDERABLE RANGE CHANGE-RATE							
054	48	-	-	-	; INS_RB :5100K COLOR TEMPERTURE AREA							
055	37	-	-	-	; Y_LEV_L0 :LOW LUMINANCE WHITE DETECT AREA INI- VALUE (HIGH 4BIT,LOW 4BIT SEPERATE)							
056	04	-	-	-	; AWB_hall_shutter		HALL VALUE= INPUT HALL -(shutter/(80*#056))					
057	48	-	-	-	; PKOUD_IRIS							
058	20	-	-	-	; PKOUD_FAR: ZOOM TELE & FOCUS FAR(5.9M) (#057+#058) LESS THEN ,SRTAT DECREASE RANGE							
059	FF	-	-	-	; PKSHUT_RAT							
05A	40	-	-	-	; PKOUD_AMIN							
05B	FF	-	-	-	; Mg DIRECTION CONTROL LIMIT							
05C	C1	-	-	-	; mAWB_Pkoud_step:]UPPER 4BIT(INCREASE SPEED),LOWER 4BIT (DECREASE SPEED)							

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
05D	FF	-	-	-	; G DIRECTION CONTROL LIMIT							
05E	FF	-	-	-	; AWB STOP WHEN R Gain > 5100K + #05E							
05F	48	-	49	48	; chHall < mAWB_Pkoud_12(#05F) + mAWB_Pkoud_far (normal)							
060	80	80	80	80	;SOPT AGC							
061	~	067			VTR DATA							
061	00	-	-	-	;HDSW ADJ							VTR-ADJ
062	19	19	19	19	; Fxt adj 32.768KHZ CLOCK FEQUENCY							VTR-ADJ
063	7F	7F	7F	7F	; MODEL1							VTR-ADJ
064	88	88	88	88	; DZM DISP SIZE							VTR-ADJ
065	05	05	01	01	; TBC DEFAULT							VTR-ADJ
066	00	-	-	-	; CUSTOM							VTR-ADJ
067	00	-	-	-	;TITLE LAN.							VTR-ADJ
068	F9	F9	F9	F9	; D/ZOOM RATIO MAX DATA(80:2 TIMES, CO:4 TIMES, X550=F5 ,X700=F8)							
069	19	19	1E	1E	; ZOOM MAX SPEED ;22X LENS PAL:1BH ,NTSC:17H) (12,16:275pps)							
06A	09	-	0B	0B	; REMCON ZOOM SPEED X22 PAL:09 =11SEC, 0B=10SEC							
06B	1A	-	-	-	; D/ZOOM RATIO OF WIDE IMAGE COMPENSATION							
06C	80	-	-	-	; D/ZOOM ON START POSITION-LOW BYTE OF WIDE IMAGE COMPENSATION							
06D	87	-	-	-	; D/ZOOM ON START POSITION-HIGH BYTE OF WIDE IMAGE COMPENSATION							
06E	00	-	-	-	; D/ZOOM ON END POSITION-LOW BYTE OF WIDE IMAGE COMPENSATION							
06F	85	-	-	-	; D/ZOOM ON END POSITION-HIGH BYTE OF WIDE IMAGE COMPENSATION							
070	00	-	-	-	; WIDE D.ZOOM X1.1 DECREASE ZOOM POSITION-'L' POINT (00 83)OR(08 80)							
071	83	-	-	-	; WIDE D.ZOOM X1.1 DECREASE ZOOM POSITION-'H' POINT (00 83)OR(08 80)							
072	50	50	50	50	; WIDE D.ZOOM OFF ZOOM POSITION-'L' POINT (50 81)OR(08 80)							
073	7C	-	-	-	; WIDE D.ZOOM OFF ZOOM POSITION-'H' POINT (50 81)OR(08 80).7C=X1.06(0E hex)							
074	09	-	-	-	; V SKIP LINE NUMBER							
075	11	11	00	00	; DZOOM BOUN DOWN (DIS MAX COMPENSATION(=66)-#075)							
076	10	-	-	-	; CINEMA F-ZONE LIMIT UP							
077	68	-	-	-	; CINEMA F-ZONE LIMIT DOWN							
078	F6	-	-	-	; DIS;WIGHT WHEN DATA INCREASE							
07D	6C	6C	20	20	; ADDR.#21B DATA OF FIELD-'H' WHEN PHOTO ON							
07E	60	60	2C	2C	; ADDR.#21B DATA OF FIELD-'L' WHEN PHOTO ON							
07F	6C	60	2C	2C	; ADDR. #21B data WHNE GHOST ON							
080	1B	-	-	-	; DIS ON XMx.XMY SETTING BY ZOOM POSITION,ADDR.#1B9,#1AE ,at WIDE END #1B8-#1AA=01hex							
081	29	-	-	-	; DIS ON, TELE POSISION D/ZOOM RATIO (29 HEX= X 1.19)							
082	0C	-	-	-	; DIS;CONTROL OF AF DATA							
083	02	-	-	-	; DIS;STEP OF AF DATA							
084	A0	-	-	-	; DIS;LIMIT							
085	0E	-	-	-	; DIS; FACTOR OF FREQUENCY							
086	39	-	-	-	; NEGA MODE FEDESTAL LEVEL #240							
087	13	13	13	13	; PB MODE #3BF CONTROL VALUE(CVF PB CLOLOR)							
088	54	-	55	54	; RBC-MAX_F							
089	8C	-	-	8B	; chAwb_PEAK_OUD=FF, RBCMIN VALUE INCREASED RANGE, chAwb_PEAK_OUD RERATED							
08A	87	-	-	-	; WHEN chAwb_MGCMAX IS MINMUM VALUE(5100K)							
08B	92	-	-	-	; WHEN chAwb_MGCMAX IS MAXIMUM VALUE , RBC VAVUE (DISTANCE VALUE WITH 200H)							
08C	FF	-	7A	-	;							
08D	93	93	A7	C1	;DSP AE TARGET COMEPESATION							
08E	50	50	50	50	;AF CLIP CNT THR LOW BYTE							
08F	01	-	-	-	;AF CLIP CNT THR HIGH BYTE							
090	00	-	-	-	; D6='0' MIDDLE ZOOM TRACK COMPENSATION ON='00' OFF='40')							
091	00	-	-	-	; DSP AF HGSTART HIGH (AT ALL AREA)							
092	32	-	-	-	; DSP AF HGSTART LOW (AT ALL AREA)							
093	00	00	01	00	; DSP AF HGSTOP HIGH (AT ALL AREA)							
094	DD	DD	4E	DD	; DSP AF HGSTOP LOW (AT ALL AREA)							

Alignment and Adjustment

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
HI8	NOR	HI8	NOR									
095	B8	-	-	-	; ZOOM VARIABLE CORVE OPTION							
096	31	31	31	31	; #0D3 LENS CHECK OPTION ('1'= WIDE END SKIP)							
097	66	-	-	-	; AE WEIGHT (B-2A);(WEIGHT/255)							
098	36	-	-	-	; AGC MAX Y SETUP(#23F)							
099	16	-	-	-	; FOCUS MIDDLE MARGIN LOW BYTE						CHANGED BY (LENS ADJUST (#0DE)	
09A	00	00	00	00	; FOCUS MIDDLE MARGIN HIGH BYTE						CHANGED BY (LENS ADJUST (#0DE)	
09B	~	0A0			AGC ADJUST SHUTTER VALUE							
0A1	B4	B4	96	96	; FADE TIME (#3 SEC*60=180==B4							
0A2	90	-	A1	A2	; RGAIN5100_L				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A3	01	-	01	01	; RGAIN5100_H				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A4	98	-	9C	82	; BGAIN5100_L				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A5	01	-	01	01	; BGAIN5100_H				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A6	D2	-	B8	CC	; RGAIN3100_L				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A7	00	-	00	00	; RGAIN3100_H				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A8	F3	-	91	E5	; BGAIN3100_L				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0A9	01	-	01	01	; BGAIN_3100H				CHANGED BY (WHITE BALANCE ADJUST(#0CF)			
0AA	6C	-	-	-	; FOCUS RESET LOW(16X,22X LENS)						CHANGED BY (LENS ADJUST (#0DE)	
0AB	81	-	-	-	; FOCUS RESET HIGH(16X,22X LENS)						CHANGED BY (LENS ADJUST (#0DE)	
0AC	21	-	-	-	; ZOOM RESET LOW(16X, 22X LENS)						CHANGED BY (LENS ADJUST (#0DE)	
0AD	87	-	-	-	; ZOOM RESET HIGH(16X, 22X LENS)						CHANGED BY (LENS ADJUST (#0DE)	
0B3	40	-	-	-	; HALL CLOSE TARGET							
0B4	95	-	-	-	; IRIS CONTROL AT ADJUSTMENT ;UPPER 8 BIT							
0B5	87	-	-	-	; IRIS CONTROL MIN LOW BYTE						CHANGED BY (IRIS ADJUST (#0CE)	
0B6	72	-	-	-	; IRIS CONTROL MIN HIGH BYTE						CHANGED BY (IRIS ADJUST (#0CE)	
0B7	81	-	-	-	; ZOOM VR CENTER VALUE SAVE ADDR. BY #0D6				CHANGED BY (ZOOM VR-CENTER ADJUST (#0D6)			
0B8	20	-	-	-	; ZOOM VR CENTER MARGEIN							
0BC	34	-	-	-	; AGC MIN							
0BD	D0	-	E0	C8	; AGC MAX							
0BE	89	-	-	-	; HALL WIDTH							
0BF	60	-	-	-	; HALL REF. START							
0C0	4C	-	-	-	; HALL GAIN. START							
0C1	42	-	-	-	; HALL MIN						CHANGED BY (HALL ADJUST (#0CD)	
0C2	DF	-	-	-	; HALL MAX						CHANGED BY (HALL ADJUST (#0CD)	
0C7	00	-	-	-	; IRIS CONTROL MAX LOW BYTE						CHANGED BY (IRIS ADJUST (#0CE)	
0C8	C2	-	-	-	; IRIS CONTROL MAX HIGH BYTE						CHANGED BY (IRIS ADJUST (#0CE)	
0C9	02	-	-	-	; FOCUS TELE MARGIN LOW BYTE						CHANGED BY (LENS ADJUST (#0DE)	
0CA	00	-	-	-	; FOCUS TELE MARGIN HIGH BYTE						CHANGED BY (LENS ADJUST (#0DE)	
0CB	28	-	-	-	; FOCUS WIDE MARGIN LOW BYTE						CHANGED BY (LENS ADJUST (#0DE)	
0CC	00	-	-	-	; FOCUS WIDE MARGIN HIGH BYTE						CHANGED BY (LENS ADJUST (#0DE)	
0D7	01	-	-	-	; ZOOM/FOCUS CHK=ONE AF ENABLE BIT 00-03							
0E0	1F	-	-	-	; Y_SOLARI : ART EEPROM #247				AA'=ALL DATA INITIAL)			
0E1	00	-	-	-	; C_SOLARI : ART EEPROM #29F,#2A0"							
0E9	2B	32	3C	3C	; CINEMA MODE FLEX ZONE VERTICAL START LIMIT							
0EA	00	00	01	01	; CINEMA MODE FLEX ZONE VERTICAL END LIMIT HIGH							
0EB	DF	DF	0D	0D	; CINEMA MODE FLEX ZONE VERTICAL END LIMIT LOW							
0EC	DC	00	EC	EF	; FLEXZONE AF/AE WINDOW H OFFSET DSP							
0ED	FA	F9	FA	FB	; FLEXZONE AF/AE WINDOW V OFFSET DSP							
0EE	B0	D4	D1	CA	; FLEXZONE AF/AE WINDOW H OFFSET DIS							
0EF	E8	ED	E8	E9	; FLEXZONE AF/AE WINDOW V OFFSET DIS							
0F0	01	01	01	01	; V_YUKO(HIGH) VERTICAL EFFECTIVE H LINE NUMBER HIGH							
0F1	03	02	2F	2B	; V_YUKO(HIGH) VERTICAL EFFECTIVE H LINE NUMBER LOW							
0F2	01	01	01	01	; H_YUKO(HIGH) HORIZONTAL EFFECTIVE PIXEL NUMBER HIGH							
0F3	80	80	78	78	; H_YUKO(HIGH) HORIZONTAL EFFECTIVE PIXEL NUMBER LOW							
0F4	81	81	00	7E	; H_HOSEI HORIZONTAL START/STOP OFFSET							

NO-OSD-DISPLAY					DISTANCE								
ADDR	MODEL/DATA				CONTENT								
	NTSC		PAL										
	HI8	NOR	HI8	NOR	D7	D6	D5	D4	D3	D2	D1	D0	
0F5	FF	-	-	-	:								
0F6	FF	-	-	-	:								
0F7	41	41	41	41	:								
0F8	01	-	-	-	:								
0F9	F6	F4	F2	F2	:								
0FA	02	-	-	-	:								
0FB	77	77	8E	8E	:								
0FC	03	-	-	-	:								
0FD	C9	C9	B0	B0	:								
0FE	02	-	-	-	:								
0FF	60	-	D0	D0	:								
100	~	116			TOP INITIALIZED DATA: FIXED								
117	02	01	02	01	:								
117	~	11F			TG-INITIALIZED DATA: FIXED								
120	04	03	01	03	:								
121	00	03	08	08	:								
122	01	0E	00	0F	:								
123	~	1A4			TG-INITIALIZED DATA= FIXED								
1A5	~	1FE			LD/CB BLOCK INITIALIZED DATA= FIXED								
1FF	~	227			KZ(WHITE DEFECT COMPENSATION) BLOCK INITIALIZED DATA FIXED								
228	~	24B			Y PROCESS BLOCK								
228	02	-	-	-	:								
229	60	60	60	60	:								
22A	01	-	0B	-	:								
22B	04	-	-	-	:								
22C	0F	-	-	-	:								
22D	01	01	01	01	:								
22E	0F	-	-	-	:								
22F	1C	18	18	18	:								
230	01	-	01	-	:								
231	00	-	-	-	:								
232	15	-	-	-	:								
233	04	-	-	-	:								
234	06	-	-	-	:								
235	01	01	01	01	:								
236	0B	-	-	-	:								
237	16	14	12	12	:								
238	00	-	-	-	:								
239	13	-	-	-	:								
23A	3F	-	-	-	:								
23B	05	-	-	-	:								
23C	0F	0D	0F	0F	:								
23D	00	-	-	-	:								
23E	08	-	-	-	:								
23F	32	34	37	32	:								
240	09	-	-	-	:								
241	01	-	-	-	:								
242	BB	-	C4	C0	:								
243	00	-	-	-	:								
244	10	-	12	-	:								
245	00	-	-	-	:								
246	00	-	-	-	:								

Alignment and Adjustment

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
	HI8	NOR	HI8	NOR								
247	00	-	-	-	;SOLARLY (YSIGNAL ART LEVEL); SET, BIT =0 FIX							
248	1F	-	-	-	;STATE DATA SETTING MODE							
249	00	-	-	-	;Y OUTPUT SIGNAL SELECT; 0 =CAMERA MODE ,1 =LINE MODE)							
24A	02	01	02	02	;Y DELAY ADJUST ; CAMEAR MODE : TYP=02 hex (+/-2 CLOCK)							
24B	00	-	-	-	; TEST MODE							
24C ~ 26B												
C PROCESS MATRIX BLOCK DATA: FIXED												
26C	03	-	03	03	;R SETUP (R set) HIGH							
26D	53	83	90	8C	;R SETUP (R set) LOW							
26E	03	-	03	03	;B SETUP (B set) HIGH							
26F	43	3A	45	2C	;B SETUP (B set) LOW							
270	03	-	03	03	;G SETUP (G set) HIGH							
271	36	-	38	40	;G SETUP (G set) LOW							
272	00	-	00	00	;R GAIN (Kr) HIGH							
273	AA	A0	B9	C5	;R GAIN (Kr) LOW							
274	01	-	01	01	;B GAIN (Kb) HIGH							
275	70	F3	F0	AE	;B GAIN (Kb) LOW							
276 ~ 27F												
C PROCESS MATRIX BLOCK DATA: FIXED												
280	01	-	01	01	;G r-y,r-g(R-YSIGNAL R-GGAIN) HIGH							
281	1A	10	48	2A	;G r-y,r-g(R-YSIGNAL R-GGAIN) LOW							
282	00	-	00	00	;G b-y,b-g(B-YSIGNAL B-GGAIN) HIGH							
283	A0	C0	D0	E2	;G b-y,b-g(B-YSIGNAL B-GGAIN) LOW							
284	01	-	01	01	;G b-y,r-g(B-YSIGNAL R-GGAIN) HIGH; Mc-y = '1' R-G > 0 AREA GAIN							
285	10	03	50	20	;G b-y,r-g(B-YSIGNAL R-GGAIN) LOW							
286	00	01	00	00	;G b-y,r-g(-) (B-YSIGNAL R-G(-)GAIN) HIGH; " R-G <0 AREA GAIN							
287	11	10	01	24	;G b-y,r-g(-) (B-YSIGNAL R-G(-)GAIN) LOW"							
288	01	-	01	01	;G r-y,b-g(R-YSIGNAL B-GGAIN) HIGH; Mc-y = '1' R-G > 0 AREA GAIN"							
289	40	4E	68	60	;"G r-y,b-g(R-YSIGNAL B-GGAIN) LOW"							
28A	01	-	01	01	;"G r-y,b-g(-) (R-YSIGNAL B-G(-)GAIN) HIGH; " R-G <0 AREA GAIN"							
28B	20	25	40	2D	;"G r-y,b-g(-) (R-YSIGNAL B-G(-)GAIN) LOW"							
28C	~	2A1			C PROCESS MATRIX BLOCK DATA: FIXED							
2A2	~	2B6			AF INITIALIZED BLOCK FIXED							
2B7 ~ 2E1												
AE INITIALIZED BLOCK FIXED												
2C5	07	05	08	05	;HCOUNT_2 (AREA 6 START -> 32PIXEL)							
2C6	0D	09	0D	09	;							
2C7	13	0E	15	0E	;HCOUNT_4 (AREA 6 STOP -> 32PIXEL)							
2C8	1A	11	1A	11	;							
2C9	1A	11	1A	11	;HCOUNT_6 (EFFECTIVE PIXEL STOP -> 32PIXEL)							
2D6	05	-	06	06	;VERTICAL AE WINDOW(V1)							
2D7	05	-	06	06	;VERTICAL AE WINDOW(V2)							
2D8	0E	0E	11	11	;VERTICAL AE WINDOW(V3)							
2D9	0E	0E	11	11	;VERTICAL AE WINDOW(V4)							
2DA	0E	0E	11	11	;VERTICAL AE WINDOW(V5)							
2E2 ~ 302												
AWB INITIALIZED BLOCK FIXED												
2E2	20	20	21	21	;OFSGM_N (OFFSET Mg-G)							
2E3	22	22	23	23	;OFSRB_N (OFFSET R-B)							
2E4	00	-	-	-	;CW_LEV_G0 (aMGL : G WHITE DETECTIONAREA)							
2E5	1C	14	1C	1A	;CW_LEV_M0 (aMGH : Mg WHITE DETECTIONAREA)							
2E6	9B	A8	A8	A6	;CW_LEV_B0 (aBBL : B WHITE DETECTIONAREA)							
2E7	3F	44	3F	3C	;CW_LEV_R0 (aRBH : R WHITE DETECTIONAREA)							
2E8	8A	90	8A	8F	;CB_LEV_G0 (bMGL : G WHITE DETECTIONAREA)							

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
H18	NOR	H18	NOR									
2E9	0A	10	10	10	;CB_LEV_M0 (bMGH : Mg WHITE DETECTIONAREA)							
2EA	95	A2	A2	A2	;CB_LEV_B0 (bRBL : B WHITE DETECTIONAREA)							
2EB	40	48	38	38	;CB_LEV_R0 (bRBH : R WHITE DETECTIONAREA)							
2EC	03	-	-	-	;Y_LEV_L0 (LOW LUMINANCE WHITE DETECTIONAREA)							
2ED	12	-	-	-	;Y_LEV_H0 (HIGH LUMINANCE WHITE DETECTIONAREA)							
2EE	04	-	-	-	;OFFSET DEC Mg-G							
2EF	02	-	-	-	;OFFSET DEC R-B							
303	~	333			DIGITAL ZOOM(DSP) INITIALIZED BLOCK FIXED							
334	~	37B			MOSAIC/MIRROR (DSP) INITIALIZED BLOCK FIXED							
37C	~	385			DISPLAY-TOP INITIALIZED BLOCK FIXED							
386	~	3B5			SSG INITIALIZED BLOCK FIXED							
386	00	-	-	02	;TV_MODE D2,D1=00: NTSC, 10=PAL							
387	03	-	-	-	;HCLR1(SSG_H COUNTER CLEAR1 ;H-START)- HIGH							
388	74	74	80	80	;LOW							
389	01	01	01	01	;HCLR2 (SSG_H COUNTER CLEAR2 ;H-MIDDLE)- HIGH							
38A	AD	AD	B8	B8	;LOW							
38B	00	00	00	00	;VCLR (SSG_V COUNTER CLEAR(T=H/2) -HIGH							
38C	02	02	02	02	;LOW							
38D	02	02	02	02	;CBLK_V tf (CBLK V blanking START PHASE)-HIGH							
38E	09	09	70	70	;LOW							
38F	2A	2A	33	33	;CBLK_V tr (CBLK V blanking END PHASE)							
390	00	-	-	-	;TKEY1_H tr (H DIRECTION TKEY1 START PHASE)-HIGH							
391	56	-	5C	65	;LOW							
392	03	-	-	-	;TKEY1_H tf (H DIRECTION TKEY1 END PHASE)-HIGH							
393	16	-	-	-	;LOW							
394	00	-	-	-	;TKEY2_H tr (H DIRECTION TKEY2 START PHASE)-HIGH							
395	5B	-	60	6A	;LOW							
396	03	-	-	-	;TKEY2_H tf (H DIRECTION TKEY2 END PHASE)-HIGH							
397	11	-	-	-	;LOW							
398	00	-	-	-	;TKEY1_V tr (V DIRECTION TKEY1 START PHASE)-HIGH							
399	20	18	20	1E	;LOW							
39A	00	01	01	01	;TKEY1_V tf (V DIRECTION TKEY1 END PHASE)-HIGH							
39B	FA	00	30	30	;LOW							
39C	00	-	-	-	;TKEY2_V tr (V DIRECTION TKEY2 START PHASE)-HIGH							
39D	23	1B	23	23	;LOW							
39E	00	-	01	01	;TKEY2_V tf (V DIRECTION TKEY2 END PHASE)-HIGH							
39F	F7	FD	2D	2D	;LOW							
3A0	43	-	-	-	;HSYNC tf (CSYNC PHASE1 ;T=1/fs)							
3A1	00	-	-	-	;HSYNC tr (CSYNC PHASE2 ;T=1/fs)-HIGH							
3A2	87	-	-	-	;LOW							
3A3	66	-	-	-	;EQ tr (CSYNC PHASE3 ;T=1/fs)							
3A4	22	-	-	-	;CAMERA MODE(REC); EN_CBLK tf (CBLK H blanking START PHASE, INTERNAL encoder)							
3A5	00	-	-	-	;CAMERA MODE(REC); EN_CBLK tr (CBLK H blanking END PHASE, INTERNAL encoder)-HIGH							
3A6	97	97	AD	AD	;LOW							
3A7	43	-	-	-	;OSDHD tr ;OSDHDSTARTPHASE(SCBLKSTARTPHASE; OSD)							
3A8	00	-	-	-	;OSDHD rf ;OSDHDENDPHASE(OSD)-HIGH							
3A9	87	87	81	81	;LOW							
3AA	25	25	25	25	;CBLK tr (CBLK blanking STARTPHASE)							
3AB	00	-	-	-	;CBLK tf (CBLK blanking ENDPHASE)-HIGH							
3AC	D5	D5	D9	E8	;LOW							
3AD	4F	4F	5C	5C	;CAMERA MODE(REC); LCDHD tf ,LCDHD STARTPHASE, LCD							
3AE	00	-	-	-	;CAMERA MODE(REC); LCDHD tr, LCDHD END PHASE, LCD -HIGH							
3AF	53	53	60	60	;LOW							

Alignment and Adjustment

		NO-OSD-DISPLAY				DISTANCE							
ADDR	MODEL/DATA				CONTENT								
		NTSC		PAL									
		HI8	NOR	HI8	NOR	D7	D6	D5	D4	D3	D2	D1	D0
3B6	~	3CC				ENCORDER INITIALIZED BLOCK DATA :FIXED							
3B6	0F	-	-	-	-	;IN-AREA SIGNAL LEVEL SELECT, VERTICAL blanking"							
3B7	21	-	-	-	-	;LPFSELECT,							
3B8	08	-	-	-	-	;Y FADE LEVEL							
3B9	00	-	-	-	-	;CHARA Y LEVEL (D4..D1: Y, D5..D8: GREEN)							
3BA	08	-	-	-	-	;R-Y FADE LEVEL							
3BB	88	-	-	-	-	;CHARA R-Y LEVEL (D4..D1: R-Y, D5..D8: GREEN)"							
3BC	08	-	-	-	-	;B-Y FADE LEVEL							
3BD	88	-	-	-	-	;CHARA B-Y LEVEL (D4..D1: B-Y, D5..D8: GREEN)							
3BE	00	-	-	-	-	;CAMERA MODE(REC) ; H resetPHASE-HIGH; S1 start point, S1(INTERNALSIGNAL);CHROMA SIGNAL							
3BF	47	48	47	47		;LOW							
3C0	01	-	-	-	-	;CHARA RGB level-HIGH, D1..4: R, D5..8:G, D9..12: B							
3C1	11	-	-	-	-	;LOW							
3C2	0C	-	-	-	-	;CHARA RGB G-level-HIGH, D1..4: R, D5..8:G, D9..12: B							
3C3	CC	-	-	-	-	;LOW							
3C4	04	-	-	-	-	; TEST CHANGE							
3C5	00	-	-	-	-	;K r-y/r-y -HIGH ,gain 4TIMES(0~1023/64)							
3C6	59	-	-	-	-	;LOW							
3C7	00	-	-	-	-	;K g-y/r-y -HIGH ,gain 4TIMES(0~1023/64)							
3C8	5A	-	-	-	-	;LOW							
3C9	00	-	-	-	-	;K b-y/b-y -HIGH ,gain 4TIMES(0~1023/64)							
3CA	92	-	-	-	-	;LOW							
3CB	00	-	-	-	-	;K g-y/b-y -HIGH ,gain 4TIMES(0~1023/64)"							
3CC	40	-	-	-	-	;LOW							
LCD													
	EVF	CVF	EVF	CVF	NOTE: DATA SEPERATED BY CVF OR NON-CVF MODEL (ADR.3CD-ADDR.552)								
3CD	~	43C				LCD1(CVF/LCD) INITIALIZED BLOCK DATA :FIXED							
3CD	10	00	10	00		;SELECTER(D14=fastck_p 1:dotsck2tnsqo 0:dotsck NORMALLY,D13= sony_n , 0:sony							
3CE	00	00	00	00		;							
3CF	39	5E	68	60		;DOTSCK TEST DATA-HIGH (0~ 65535 SELECT ,8000h=2 DIV)							
3D0	A6	6B	C0	00		;LOW							
3D1	00	00	00	00		;MARUME COMPENSATION-HIGH							
3D2	00	00	00	00		;LOW							
3D3	00	00	00	00		;GAMMA 1-HIGH (D13~D1:GAMMA1 DATA[9..1] 0~511 SELECT, 1STEP							
3D4	3E	3E	3E	3E		;LOW							
3D5	C0	41	C0	41		;SAMPLING SYNCHRONIZE 1- HIGH							
3D6	01	00	01	00		;LOW							
3D7	15	11	15	11		;SAMPLING SYNCHRONIZE 2- HIGH							
3D8	26	22	26	22		;LOW							
3D9	00	00	00	00		;SETUP SETTING (D13~D9 :0~31 SELECT,)							
3DA	00	00	00	00		;							
CVF CONTRAST/BRIGHT R/G/B ADJUST													
3DB	25	-	-	-		;CONTRAST(0~4TIMES 1/64 STEP 40hX1						CVF ADJUST	
3DC	25	-	-	-		;BRIGHT (R)						CVF ADJUST	
3DD	25	-	-	-		;BRIGHT (G)						CVF ADJUST	
3DE	25	-	-	-		;BRIGHT (B)						CVF ADJUST	
43D	~	452				LTG1(VCK1=LCD) TIMIMG DATA: FIXED							
453	~	476				LTG2(VCK2=LCD) TIMIMG DATA: FIXED							
477	~	49A				LTG3(LCD) TIMIMG DATA: FIXED							
49B	~	4BE				LTG4(LCD) TIMIMG DATA: FIXED							
4BF	~	4D6				LTG5(CLK=LCD) TIMIMG DATA: FIXED							
4D7	~	4EE				LTG6(ENABLE=LCD) TIMIMG DATA: FIXED							
4EF	~	506				LTG7(H.START=LCD) TIMIMG DATA: FIXED							

NO-OSD-DISPLAY					DISTANCE									
ADDR	MODEL/DATA				CONTENT									
NTSC		PAL												
HI8	NOR	HI8	NOR		D7	D6	D5	D4	D3	D2	D1	D0		
507	~	51E			LTG8(V.START=LCD) TIMING DATA: FIXED									
537	~	556			LTG10(HCK1=LCD) TIMING DATA: FIXED									
51F	~	536			LTG9(DIS-VD PULSE=LCD) TIMING DATA: FIXED								NON-CVF	
529	00	-	-	-	;								NON-CVF	
52A	00	-	-	01	;								NON-CVF	
52B	01	01	02	02	;DIS VD- HD FALLING TIMING SETTING-HIGH								NON-CVF	
52C	78	78	9D	AD	;DIS VD- HD FALLING TIMING SETTING-LOW								NON-CVF	
563	~	56E			CAMERA MODE VERTICAL DIRECTION CONVERT LCD(LTG1) TIMING SETTING DATA FIXED								CASIO-LCD	
563	C2	-	-	-	;VERTICAL CONVERT, OUTPUT CONVERT-LOW (CAMERA MODE-LTG1)					#42F		CASIO-LCD		
564	04	-	-	-	MCK	MOD	OEI	PAL	DCLK	#430	HIGH	CASIO-LCD		
565	01	-	01	-	;VERTICAL CONVERTΩ					LTG 1 EVEN	#431		CASIO-LCD	
566	FF	-	FF	-	;								#432	CASIO-LCD
567	01	-	01	-	;VERTICAL CONVERT			LTG 1 ODD		#433		CASIO-LCD		
568	FF	-	FF	-	;								#434	CASIO-LCD
569	00	-	00	-	;VERTICAL CONVERT			LTG 1 TOGGLE POINT 1		#435		CASIO-LCD		
56A	36	-	72	56	;								#436	CASIO-LCD
56B	00	-	00	-	;VERTICAL CONVERT			LTG 1 EVEN		#437		CASIO-LCD		
56C	02	-	02	-	;								#438	CASIO-LCD
56D	00	-	00	-	;VERTICAL CONVERT			LTG 1 ODD		#439		CASIO-LCD		
56E	02	-	02	-	;								#43A	CASIO-LCD
56F	~	57A			CAMERA MODE HORIZONTAL DIRECTION CONVERT LCD (LTG1)TIMING SETTING DATA FIXED								CASIO-LCD	
56F	C2	-	-	-	;HORIZONTAL DIRECTION CONVERT					#42F		CASIO-LCD		
570	00	-	-	-	;								#430	CASIO-LCD
571	00	-	00	-	;HORIZONTAL DIRECTION CONVERT								#431	CASIO-LCD
572	02	-	02	-	;								#432	CASIO-LCD
573	00	-	00	-	;HORIZONTAL DIRECTION CONVERT								#433	CASIO-LCD
574	02	-	02	-	;								#434	CASIO-LCD
575	00	-	00	-	;HORIZONTAL DIRECTION CONVERT								#435	CASIO-LCD
576	36	-	72	56	;								#436	CASIO-LCD
577	01	-	01	-	;HORIZONTAL DIRECTION CONVERT								#437	CASIO-LCD
578	FF	-	FF	-	;								#438	CASIO-LCD
579	01	-	01	-	;HORIZONTAL DIRECTION CONVERT								#439	CASIO-LCD
57A	FF	-	FF	-	;								#43A	CASIO-LCD
57B	~	586			CAMERA MODE VER./HORIZONTAL DIRECTION CONVERT LCD (LTG1)TIMING SETTING DATA								CASIO-LCD	
57B	C2	-	-	-	;VERTICAL/HORIZONTAL DIRECTION CONVERT(LTG1)					#42F		CASIO-LCD		
57C	04	-	-	-	;								#430	CASIO-LCD
57D	00	-	00	-	;VERTICAL/HORIZONTAL DIRECTION CONVERT								#431	CASIO-LCD
57E	02	-	02	-	;								#432	CASIO-LCD
57F	00	-	00	-	;VERTICAL/HORIZONTAL DIRECTION CONVERT								#433	CASIO-LCD
580	02	-	02	-	;								#434	CASIO-LCD
581	00	-	00	-	;VERTICAL/HORIZONTAL DIRECTION CONVERT								#435	CASIO-LCD
582	36	-	72	56	;								#436	CASIO-LCD
583	01	-	01	-	;VERTICAL/HORIZONTAL DIRECTION CONVERT								#437	CASIO-LCD
584	FF	-	FF	-	;								#438	CASIO-LCD
585	01	-	01	-	;VERTICAL/HORIZONTAL DIRECTION CONVERT								#439	CASIO-LCD
586	FF	-	FF	-	;								#43A	CASIO-LCD
587	~	58A			VTR-PB SEARCH MODE LCD TIMING SETTING DATA FIXED								CASIO-LCD	
587	30	-	-	-	;SEARCH/STILL, HV COUNTER TEST DATA-LOW					#3FD		CASIO-LCD		
588	00	-	-	-	HLD	VLD	ALO	ofe2	hf1	#3FE		CASIO-LCD		
589	80	-	-	-	;SEARCH/STILL, SRT SIGNAL SHIFT -LOW								#409	CASIO-LCD
58A	02	-	-	-	CSO	fps						#40A	CASIO-LCD	

Alignment and Adjustment

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
HI8	NOR	HI8	NOR									
58B	~	5A2			LTG9(DIS-VD PULSE=CVF MODEL) TIMING DATA: FIXED							CVF
595	00	00	00	00	;							CVF
596	00	-	00	01	;							CVF
597	02	02	02	02	; DIS VD- HD FALLING TIMING SETTING-HIGH							CVF
598	6A	6A	65	6C	; DIS VD- HD FALLING TIMING SETTING-LOW							CVF
5A7	94	-	-	-	; CVF COM_DC			MICOM PIN 28 OUTPUT				CVF
5A8	52	-	-	-	; CVF COM_CRL			MICOM PIN 21 OUTPUT				CVF
5A9	47	47	47	47	;#3BF	EN_A04_OF	H reset -LOW				CASIO-LCD-PB CVF-PB	
5AA	1B	43	38	43	;#3AD	SSG_A04_DE	PB MODE H- START PULSE				CASIO-LCD-PB CVF-PB	
5AB	00	00	00	00	;#3AE	SSG_A04_DF	PB MODE H- END PULSE				CASIO-LCD-PB CVF-PB	
5AC	3B	47	40	47	;#3AF	SSG_A04_DF	PB MODE H- END PULSE				CASIO-LCD-PB CVF-PB	
5AD	~	5CD			CASIO LCD (CANON MODEL) SETTING							
5AD	00	-	-	-	; #3D3	GAMMA 1 HIGH				CASIO-LCD		
5AE	3E	-	-	-	; #3D4	GAMMA 1 LOW				CASIO-LCD		
5AF	2E	-	-	-	; #3DB	CONTRAST(0~4TIMES 1/64 STEP 40hX1				CASIO-LCD		
5B0	00	-	-	-	; #3DC	BRIGHT (R) , BRIGHT 0~255 :00h SETTING IS +0 bright ADJUST				CASIO-LCD		
5B1	00	-	-	-	; #3DD	BRIGHT (G) , BRIGHT 0~255:00h SETTING IS +0 bright ADJUST				CASIO-LCD		
5B2	00	-	-	-	; #3DE	BRIGHT (B) , BRIGHT 0~255: 00h SETTING IS +0 bright ADJUST				CASIO-LCD		
5B3	00	-	-	-	; #3E3	GAMMA 2 HIGH				CASIO-LCD		
5B4	40	-	-	-	; #3E4	GAMMA 2 LOW				CASIO-LCD		
5B5	80	-	-	-	; #3E5	R GAIN				CASIO-LCD		
5B6	80	-	-	-	; #3E6	G GAIN				CASIO-LCD		
5B7	70	-	-	-	; #3E7	B GAIN				CASIO-LCD		
5B8	50	-	A9	-	LCD COM_DCMICOM PIN 28 OUTPUT				CASIO-LCD			
5B9	60	-	50	-	LCD COM_CRLMICOM PIN 21 OUTPUT				CASIO-LCD			
5BA	54	54	54	54	STEP R GAIN LCD USER ADJUST				CASIO-LCD			
5BB	54	54	54	54	STEP G GAIN				CASIO-LCD			
5BC	54	54	54	54	STEP B GAIN				CASIO-LCD			
5BD	55	-	-	-	;				CASIO-LCD			
5C0	00	-	-	-	; #4D7	CAM MODE- VERTICAL CONVERT				CASIO-LCD		
5C1	1D	-	3A	-	; #4D8	#4D7~#4D8:COMMAND				CASIO-LCD		
5C2	00	-	-	-	#4D9~4DA,4DB~4DC,4E5~4E6,4E7~4E8				CASIO-LCD			
5C3	18	-	1D	1D	#4D9~4DA,4DB~4DC,4E5~4E6,4E7~4E8				CASIO-LCD			
5C4	00	-	00	00	; #4D7	PB MODE MODE -LCD VERTICAL SIZE SIZE				CASIO-LCD		
5C5	16	-	2C	16	; #4D8	(H SIZE# 690)				CASIO-LCD		
5C6	00	-	00	00	#4D9~4DA,4DB~4DC,4E5~4E6,4E7~4E8				CASIO-LCD			
5C7	0D	-	11	17	#4D9~4DA,4DB~4DC,4E5~4E6,4E7~4E8				CASIO-LCD			
5CA	00	00	00	00	; #4D7	VTR-PB MODE VERTICAL/HORIZONTAL DIRECTION CONVERT				CASIO-LCD		
5CB	1D	-	3A	-	; #4D8	;				CASIO-LCD		
5CC	00	-	-	-	#4D9~4DA,4DB~4DC,4E5~4E6,4E7~4E8				CASIO-LCD			
5CD	0F	-	11	15	#4D9~4DA,4DB~4DC,4E5~4E6,4E7~4E8				CASIO-LCD			
5EC	59	-	-	-	K r-y/r-y -HIGH ,gain 4TIMES(0~1023/64)				#3C6	CVF		
5ED	5A	-	-	-	K g-y/r-y -HIGH ,gain 4TIMES(0~ 1023/64)				#3C8	CVF		
5EE	92	-	-	-	K b-y/b-y -HIGH ,gain 4TIMES(0~1023/64)				#3CA	CVF		
5EF	40	-	-	-	K g-y/b-y -HIGH ,gain 4TIMES(0~1023/64)				#3CC	CVF		
5F9	66	-	66	66	; #4F0	PB MODE				CVF		
5FA	66	-	66	66	; #4F6	PB MODE				CVF		
5FB	71	-	71	71	; #4FC	PB MODE				CVF		
5FC	71	-	71	71	; #502	PB MODE				CVF		
600	~	67F			DIS REGISTER							
600	48	-	-	-	DIS_ON	ZOOM_ON	LSSC_ON	MIRR_ON	PIP_ON	POWER	PIP_MIRR	BYPASS
601	8C	-	-	-	FRAME	STILL1	STILL2	CEDGE_ON	APT_ON	OSD_ON	TRA_ON	GAMA_ON

NO-OSD-DISPLAY					DISTANCE								
ADDR	MODEL/DATA				CONTENT								
	NTSC		PAL										
	HI8	NOR	HI8	NOR	D7	D6	D5	D4	D3	D2	D1	D0	
602	20	00	60	40	DVC	PAL	HIGH	FLD_SEL	BIST	PN_SEL	CUR_HOLD	CLEAR	
603	00	-	-	-	KX (7:0) HORIZONTAL ZOOM COEFFICIENT VALUE								
604	00	-	-	-	KY (7:0) VERTICAL ZOOM COEFFICIENT VALUE								
605	85	5E	83	5E	SP_H (7:0) HORIZONTAL START POINT FOR ZOOM								
606	11	11	16	14	SP_V (7:0) VERTICAL START POINT FOR ZOOM								
607	03	F0	00	00	WIDTH (7:0) HORIZONTAL WIDTH LSB								
608	03	01	03	02	X	X	X	X	X	X	WIDTH (9:8)	WIDTH MSB	
609	F5	F5	22	22	HEIGHT [7:0] VERTICAL HEIGHT LSB								
617	65	3D	63	3D	OUT_OFF (7:0) FIELD MEMORY1 HORIZONTAL OUTPUT S/P								
618	65	3D	63	3D	OUT_OFF1 (7:0) FIELD MEMORY1 HORIZONTAL OUTPUT S/P								
619	08	08	-	-	GR_MODE (7:4) INTERNAL IMAGE SELECT MODE				OSD_VAL (3:0)				
61A	8E	8E	90	8E	CLK2_SEL (6:0) CLK DELAY ADJUST								
61B	00	60	2C	2C	S1S2_SEL0	CRCB_SEL0	S1S2_SEL1	CRCB_SEL1	LINE_SEL0	LINE_SEL1	LINE_SEL2	LINE_SEL3	
61C	02	02	03	02	OSD_SEL (7:5)			HVD_ADJ					
673	38	38	38	38	PTHRESH (7:0) DIGITAL CLAMP THRESHOLD VALUE FROM MICOM								
674	04	04	04	04	POFFSET (7:0) DIGITAL CLAMP OFFSET VALUE FROM MICOM								
675	03	-	-	-	PCMD (7:0) PREPROCESS COMMAND FROM MICOM								
676	00	-	-	-	PRAMIL (7:0) DEFECT POSITION VALUE(7:0) FROM MICOM								
677	00	-	-	-	PRAMIM (16:8) DEFECT POSITION VALUE(15:8) FROM MICOM								
678	00	-	-	-	X	X	X	X	PRAMIM (19:16) DEFECT POSITION FROM MICOM				
679	00	-	-	-	X	X	PRAMA_MI (5:0) LINE MEMORY ADDRESS FROM MICOM						
67A	00	-	-	-	;DIS;FACTOR AT BLC ON CONDITON								
67B	00	-	-	-	;DIS;FACTOR AT BLC ON CONDITON								
67C	10	-	-	-	;DIS;CCD DEFECT COMPENSATION DIGITAL CLAMP LEVEL#674								
67D	D0	-	-	-	;DIS; DIS ON AGC AE TARGET DOWN PERCENT								
67E	F4	-	-	-	;DIS;WIGHT WHEN DECREASE								
67F	00	-	-	-	;DIS; STEP CONTROL '00-88'								
680	~	7FF			VTR PART ADDRESS & DATA [061-067 & 680-7FF]								
690	1B	1B	17	17	;PB MODE HDIRECTION START PULSE								
691	00	-	-	-	;PB MODE HDIRECTION END PULSE								
692	3B	3B	42	42	;PB MODE HDIRECTION END PULSE								
693	07	-	-	-	;PB MODE(CAM/TG/DEM0D/AD) - STD2								
694	FC	-	-	-	;PB MODESTD1								
695	03	-	-	-	;PB MODE(RCON/DISP) - LCD CLOSE(LCD POWER OFF D5 = %%1%%)								
696	C3	-	-	-	; PB MODE								
697	00	-	-	-	;PB MODE(SRAM) - LCD CLOSE(LCD POWER OFF D9 = %%1%%)								
698	00	-	-	-	; PB MODE								
699	00	-	-	-	; PB MODE								
69A	01	-	-	-	; PB MODE								
69B	00	-	-	-	; PB MODE								
69C	0F	-	-	-	; PB MODE								
69D	14	-	-	-	; PB MODE								
69E	7F	-	-	-	; PB MODE								
69F	03	-	-	-	; PB MODE								
6A0	FF	-	-	-	;								
6A1	00	07	00	04	; PB MODE SCK CNT~SCK MASK(NTSC1820fh/3,PAL1824fh/3)								
6A2	02	02	03	02	; PB MODE TG HCYCLE		TG: H CYCLE SETTING (T=1/fs) : D11 ~ D9						
6A3	8D	5D	8F	5F	; PB MODE TG HCYCLE		TG: H CYCLE SETTING (T=1/fs) : D8 ~ D1						
6B0	00	-	-	-	;BACKUP_EMG_L			VCR EEPROM DATA(LITHIUM BACKUP AREA)					
6B1	00	-	-	-	;BACKUP_EMG_H								
6B2	00	-	-	-	;BACKUP_TTLSELDATA								
6B3	00	-	-	-	;BACKUP_TITLEDSPCUSSTATE(DISP_OFF)//SAMSUNG								
6B4	00	-	-	-	;BACKUP_TITLEDSPSTATE(DISP_OFF)//CANON								

Alignment and Adjustment

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
HI8	NOR	HI8	NOR									
6B5	00	-	-	-	;BACKUP_DTIMEDSPSTATE(DISP_OFF)//CANON							
6B6	00	-	-	-	;BACKUP_PAEDATA(AUTO)							
6B7	00	-	-	-	;BACKUP_DSEDATA(AUTO)							
6B8	00	-	-	-	;BACKUP_PBDSEDATA(AUTO)							
6B9	11	-	-	-	;BACKUP_USERBRIGHT							
6BA	11	-	-	-	;BACKUP_USERCOLOR							
6BB	0B	-	-	-	;BACKUP_USERVOLUME							
6BC	00	-	-	-	;RESERVE							
6BD	00	-	-	-	;RESERVE							
6BE	00	-	-	-	;RESERVE							
6BF	12	-	-	-	;RESERVE							
6C0	00	-	-	-	;TAPECOUNTER0							
6C1	00	-	-	-	;TAPECOUNTER1							
6C2	00	-	-	-	;TAPECOUNTER2							
6C3	00	-	-	-	;TAPECOUNTER3							
6C4	2B	-	-	-	;BACKUP_FLAG0							
6C5	07	-	-	-	;BACKUP_FLAG1							
6C6	4D	-	-	-	;BACKUP_FLAG2							
6C7	FF	-	-	-	;							
6C8	80	-	-	-	;data low							
6C9	00	-	-	-	;data high							
6CA	80	-	-	-	;data low							
6CB	00	-	-	-	;data high							
700	20	20	78	78	;CAM MODE(REC/RECP/STOP) : D1~D8							
701	10	-	-	-	;CAM MODE(REC/RECP/STOP) : D9~D16							
702	00	-	-	-	;CAM MODE(REC/RECP/STOP) : D17~D24							
703	00	-	-	-	;CAM MODE(REC/RECP/STOP) : D25~D32							
704	29	-	-	-	;CAM MODE(REC/RECP/STOP) : D33~D40							
705	78	78	78	78	;CAM MODE(REC/RECP/STOP) : D41~D48							
706	88	-	-	-	;CAM MODE(REC/RECP/STOP) : D49~D56							
707	1B	-	-	-	;CAM MODE(REC/RECP/STOP) : D57~D64							
708	88	-	-	-	;CAM MODE(REC/RECP/STOP) : D65~D72							
709	C2	-	-	-	;CAM MODE(REC/RECP/STOP) : D73~D80							
70A	00	-	-	-	;CAM MODE(REC/RECP/STOP) : D81~D88							
70B	6A	-	-	-	;CAM MODE(REC/RECP/STOP) : D89~D96							
70C	33	33	13	13	;CAM MODE(REC/RECP/STOP) : D97~D104							
70D	1B	-	-	-	;CAM MODE(REC/RECP/STOP) : D105~D112							
70E	9F	-	-	-	;CAM MODE(REC/RECP/STOP) : D113~D120							
70F	50	-	-	-	;CAM MODE(REC/RECP/STOP) : D121~D128							
710	21	21	79	79	;NORMALLYPB PB/EDIT-PB : D1~D8							
711	16	16	1E	1E	;NORMALLYPB PB/EDIT-PB : D9~D16							
712	05	05	1B	1B	;NORMALLYPB PB/EDIT-PB : D17~D24							
713	2E	-	-	-	;NORMALLYPB PB/EDIT-PB : D25~D32							
714	29	29	27	27	;NORMALLYPB PB/EDIT-PB : D33~D40							
715	25	-	-	-	;NORMALLYPB PB/EDIT-PB : D41~D48							
716	89	89	CA	CA	;NORMALLYPB PB/EDIT-PB : D49~D56							
717	1C	-	-	-	;NORMALLYPB PB/EDIT-PB : D57~D64							
718	80	-	-	-	;NORMALLYPB PB/EDIT-PB : D65~D72							
719	B0	-	-	-	;NORMALLYPB PB/EDIT-PB : D73~D80							
71A	10	-	-	-	;NORMALLYPB PB/EDIT-PB : D81~D88							
71B	10	-	-	-	;NORMALLYPB PB/EDIT-PB : D89~D96							
71C	AA	AA	A9	A9	;NORMALLYPB PB/EDIT-PB : D97~D104							
71D	24	-	-	-	;NORMALLYPB PB/EDIT-PB : D105~D112							

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
HI8	NOR	HI8	NOR									
71E	48	-	-	-	;NORMALLYPB PB/EDIT-PB : D113-D120							
71F	14	-	-	-	;NORMALLYPB PB/EDIT-PB : D121-D128							
720	00	-	-	-	;NORMALLYPB PB/EDIT-VRPB : D89-D96							
721	17	17	1F	1F	;NORMALLYPB STIL/E-STIL : D9-D16							
722	18	-	-	-	;NORMALLYPB STIL/E-STIL : D17-D24							
723	2E	-	-	-	;NORMALLYPB STIL/E-STIL : D25-D32							
724	2D	2D	2D	2D	;NORMALLYPB STIL/E-STIL : D41-D48							
725	00	-	-	-	;NORMALLYPB STIL/E-STIL : D89-D96							
726	1B	-	-	-	;NORMALLYPB STIL/E-STIL : D105-D112							
727	2D	2D	2D	2D	;NORMALLYPB CUE/REV/E-CUE/E-REV : D41-D48							
728	B0	-	-	-	;NORMALLYPB CUE/REV/E-CUE/E-REV : D73-D80							
745	24	24	7C	7C	;HI8 CAM(REC/RECP/STOP):D1-D8							
746	C9	C9	E9	E9	;HI8 CAM(REC/RECP/STOP):D33-D40							
747	78	78	78	78	;HI8 CAM(REC/RECP/STOP):D41-D48							
748	88	-	-	-	;HI8 CAM(REC/RECP/STOP):D49-D56							
749	88	-	-	-	;HI8 CAM(REC/RECP/STOP):D65-D72							
74A	C2	-	-	-	;HI8 CAM(REC/RECP/STOP):D73-D80							
74B	03	-	-	-	;HI8 CAM(REC/RECP/STOP):D81-D88							
74C	29	-	-	-	;HI8 CAM(REC/RECP/STOP):D89-D96							
74D	00	-	-	-	;HI8 CAM(REC/RECP/STOP):D113-D120							
74E	50	-	-	-	;HI8 CAM(REC/RECP/STOP):D121-D128							
74F	A4	-	-	-	;HI8-PB(PB/EDIT-PB) : D33-D40							
750	45	-	-	-	;HI8-PB(PB/EDIT-PB):D41-D48							
751	89	89	CA	CA	;HI8-PB(PB/EDIT-PB):D49-D56							
752	80	-	-	-	;HI8-PB(PB/EDIT-PB):D65-D72							
753	D4	-	-	-	;HI8-PB(PB/EDIT-PB):D73-D80							
754	AA	AA	A9	A9	;HI8-PB(PB/EDIT-PB):D97-D104							
755	49	49	49	49	;HI8-PB(PB/EDIT-PB):D113-D120							
756	0C	-	-	-	;HI8-PB(PB/EDIT-PB):D121-D128							
757	0D	-	-	-	;HI8-PB(STILL/E-STILL):D41-D48							
758	0D	-	-	-	;HI8-PB(CUE/REV/E-CUE/E-REV):D41-D48							
759	B4	-	-	-	;HI8-PB(CUE/REV/E-CUE/E-REV):D73-D80							
776	10	-	-	-	;NORMALLY AND N/M-PAL PB/SEARCH MODE HI8ME:D113-D120(D90-D91)							
777	60	-	-	-	;TBC OFF : D89-D96: D94-D95							
778	1B	-	-	-	;TBC OFF : D105-D112 ; D105-D112							
779	5B	-	-	-	;PAL60 TBCOFF : D97-D104 ; D97-D100							
77A	5B	-	-	-	;"NORMALLY,M/N_PAL MODE TBC OFF;D97-D104 ; D97-D100"							
77B	92	92	12	12	;LCD OPEN SKEW :D88= 1 SETTING							
77C	12	-	-	-	;" NOT USED;NORMALLY AND N/M_PAL VRPB,STILL,SEARCH ; D81-D88"							
77D	12	-	-	-	;" NOT USED;PAL60 VRPB,STILL,SEARCH ; D81-D88"							
77E	00	-	-	-	; NOT USED							
77F	00	-	-	-	; NOT USED							
780	80	80	86	86	;CAM FADE MUTE LEVEL							
781	20	20	24	24	;CAM PEDESTAL LEVEL							
782	0A	-	-	-	;FMEQ CONTROL LB,HB CURVE AND LIMITER							
783	3C	-	-	-	;PB/LB CONVERT COMPENSATION TRAP DEPTH							
784	59	59	64	64	;CAM B-Y BURST LEVEL							
785	80	80	9C	9C	;CAM R-Y BURST LEVEL							
786	4A	4A	40	40	;PB TBC OFF:PEDESTAL LEVEL							
787	0E	0E	06	06	;PB TBC OFF:PB SYNC LEVEL							
788	18	-	-	-	;SYNC SEP&AF ZONE ADD LEVEL							
789	38	-	-	-	;Y AND CAM Y CLIP LEVEL							
78A	08	-	-	-	;CAM SYNC CUT LEVEL							
78B	10	-	-	-	;C RF OUTPUT A/D SETTING							

Alignment and Adjustment

ADDR	NO-OSD-DISPLAY				DISTANCE							
	MODEL/DATA				CONTENT							
	NTSC		PAL		D7	D6	D5	D4	D3	D2	D1	D0
HI8	NOR	HI8	NOR									
78C	22	22	22	22	;TRIC DO DETECTION LEVEL							
78D	3B	-	-	-	;PB DO DETECTION LEVEL							
78E	FF	-	-	-	;FCNR/C DEEMPHA/C EMPHA LIMITER							
78F	FB	-	-	-	;PB_C ENHANCER/CNR/C GAINSETTINGCLIP							
790	B8	-	-	-	;PB BLUE BACKSIGNAL B-Y LEVEL							
791	6E	-	-	-	;PB BLUE BACKSIGNAL R-Y LEVEL						PB B-Y BURST LEVEL	
792	59	59	64	64	;ffapc B-Y BURST LEVEL				PB R-Y BURST LEVEL			
793	80	80	9C	9C	;ffapc R-Y BURST LEVEL							
794	15	-	-	-	;TBC SYNC LEVEL							
795	AC	-	-	-	;TBC LB *\$H B SYNC CUT LEVEL							
796	59	59	64	64	;TBC B-Y BURST LEVEL						PB B-Y BURST LEVEL	
797	80	80	9C	9C	;TBC R-Y BURST LEVEL						PB R-Y BURST LEVEL	

CHANGED DATA BY MODEL

ADDR	MODEL/DATA				CONTENT	APPLY MODELS
	NTSC		PAL			
	HI8	NOR	HI8	NOR		
001		C6	C6	C6	OPTION(DIS MODEL)	VP-L750/VP-L770/SCL750/SCL770
		46		46	OPTION(NON-DIS MODEL)	VP-L710/SCL700
021		08	08	08	AGC ON H ENHANCER	VP-L750/VP-L770/SCL750/SCL770
		05		05	AGC ON H ENHANCER	VP-L710/SCL700
031		08	08	08	AGC ON H CORE LEVEL	VP-L750/VP-L770/SCL750/SCL770
		05		05	AGC ON H CORE LEVEL	VP-L710/SCL700
032		08	08	08	AGC ON V CORE LEVEL	VP-L750/VP-L770/SCL750/SCL770
		05		05	AGC ON V CORE LEVEL	VP-L710/SCL700