

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: though the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

1. Setting the service mode by the microprocessor.

- ① Make a short-circuit JA122 and JA124 for a second and release to switch to the service mode position and the microprocessor is in input mode. (Adjustment through the I²C bus control). (Use JWS Key to set as well).
- ② Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.
- ③ Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.
- ④ Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.
- ⑤ Disconnect TP1001 and TP1002, switch to the normal mode (OFF) position and the microprocessor is in out of the service mode.

2. Factory Presetting.

- ① Make a short-circuit Ja122 and JA124 for a second and release to switch to the service mode position and turn on the main power switch. Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).
- ② The initial data are preset as listed in pages 5-7.
- ③ Make sure the data need modify or not (Initial data).

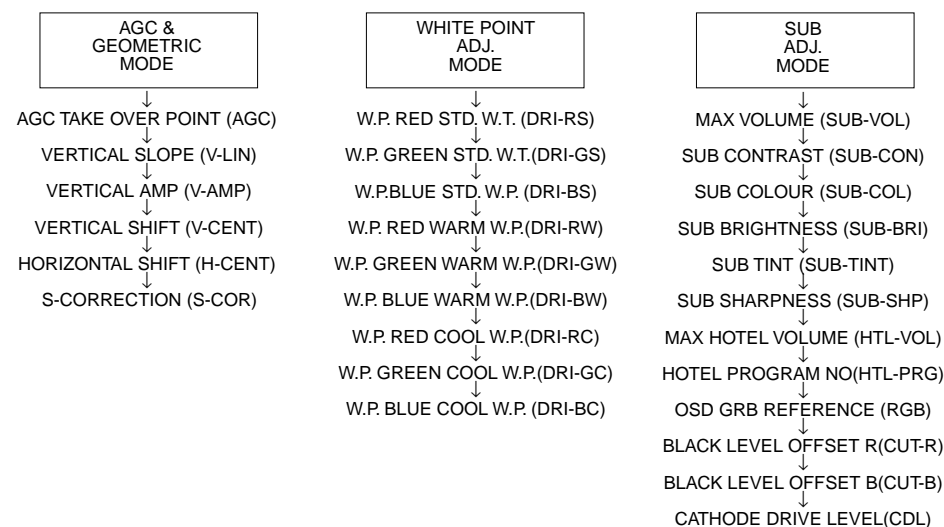
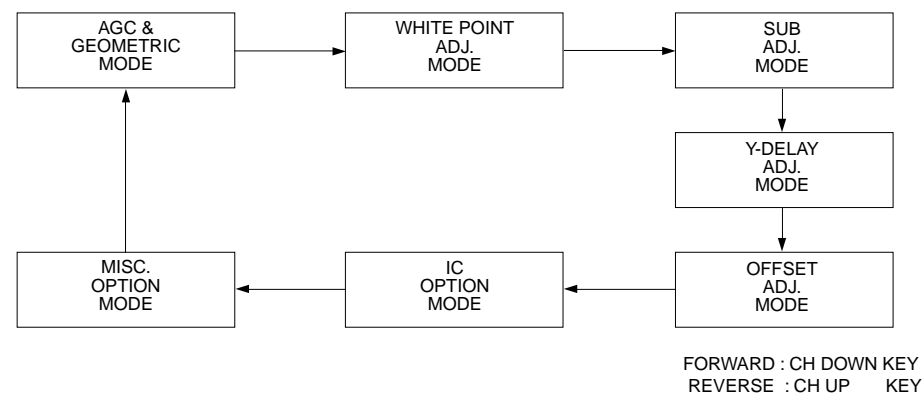
Note: Once the chassis has been assembly together and ready to be **POWER ON** for the **FIRST TIME**, make sure to make a short-circuit JA122 and JA124 switch to the service mode position first and then turn on the main power switch. (See 2-1 above).

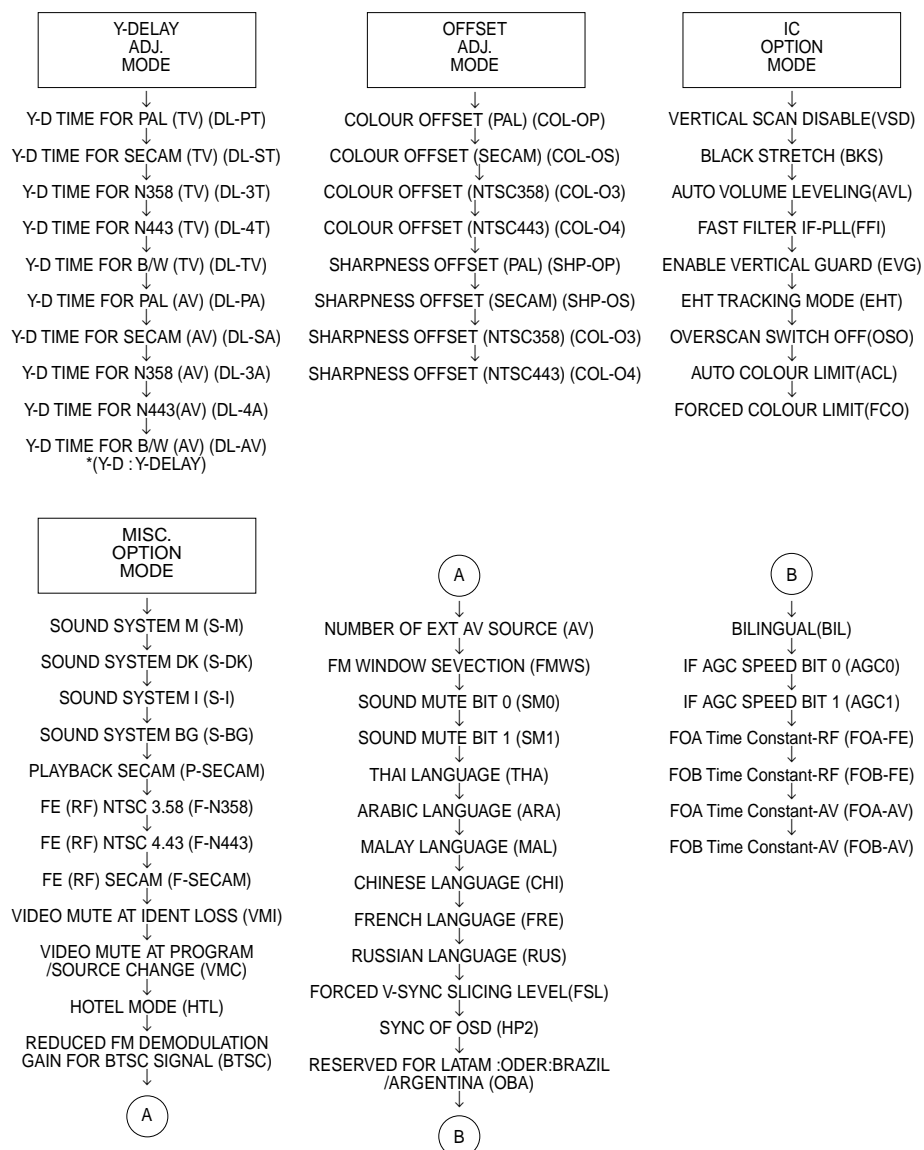
Precaution: If haven't done this initiation, it may possibly generate excessive Beam current.

3. For reference please check with memory map (UA1 Series type RH-IX3311CE Attachment)

■ SERVICE MODE

(1) In the Service Mode, Key is used to select the mode in the following order.





USER DATA IN SERVICE MODE

- * While SERVICE mode ON, EEPROM DATA will switch to the service data. Also, once SERVICE mode OFF, EEPROM will switch back to previous USER DATA.
- * In the service mode, the user data establish as below,

MODE	USER DATA
CONTRAST	MIN (1/60)
COLOUR	MIN (1/60)
BRIGHTNESS	MIN (1/60)
TINT	MIN (1/60)
SHARPNESS	MIN (1/60)
WHITE TEMP	STANDARD
S-VOLUME	MIN (1/60)
BLUE BACK	OFF
C SYSTEM	AUTO
S SYSTEM	*1

*1 : For each CH, before changing service mode setting.

The flow of Mode lists as following,

- * Direct Key-in Step1 Mode

RC COMMAND	SERVICE-ITEM
FUNCTION	AGC
CONTRAST DOWN	V-LIN
COLOUR DOWN	V-AMP
BRIGHTNESS DOWN	V-CENT
TINT DOWN	H-CENT
SHARPNESS DOWN	EW / /
SYSTEM	HB
BLUEBACK	S-COR
TIMER	SUB-VOL
CONTRAST UP	SUB-CON
COLOUR UP	SUB-COL
BRIGHTNESS UP	SUB-BRI
TINT UP TINT	SUB TINT
SHARPNESS UP	SUB-SHP

After short JA122 & 124, and turn on the main power switch, read data from E²PROM address 00H ~ 03H, and compare to the list below, if different, initialize the E²PROM.

Address : Data Address : Data
00H : 55H 02H : 43H
01H : 4FH 03H : A1H

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ	REMARK
AGC TAKE OVER POINT	AGC	0-63	14	ADJ	
VERTICAL SLOPE	V-LIN	0-63	32	ADJ	
VERTICAL AMPLITUDE	V-AMP	0-63	32	ADJ	
VERTICAL SHIFT	V-CENT	0-63	32	ADJ	
HORIZONTAL SHIFT	H-CENT	0-63	32	ADJ	
S-CORRECTION	S-COR	0-63	0	FIX	
WHITE POINT RED STD WHITE TEMP	DRI-RS	0-63	32	FIX	
WHITE POINT GREEN STD WHITE TEMP	DRI-GS	0-63	32	ADJ	
WHITE POINT BLUE STD WHITE TEMP	DRI-BS	0-63	32	ADJ	
WHITE POINT RED WARM WHITE TEMP	DRI-RW	0-63	32	FIX	
WHITE POINT GREEN WARM WHITE TEMP	DRI-GW	0-63	32	FIX	(DRI-GS)-7 DATA
WHITE POINT BLUE WARM WHITE TEMP	DRI-BW	0-63	32	FIX	(DRI-BS)-7 DATA
WHITE POINT RED COOL WHITE TEMP	DRI-RC	0-63	25	FIX	(DRI-BS)-7 DATA
WHITE POINT GREEN COOL WHITE TEMP	DRI-GC	0-63	32	FIX	(DRI-GS)-7 DATA
WHITE POINT BLUE COOL WHITE TEMP	DRI-BC	0-63	63	FIX	(DRI-BS)SAMEDATA
MAX VOLUME	SUB-VOL	0-63	63	FIX	
SUB CONTRAST	SUB-CON	0-63	63 (50 *3)	FIX	
SUB COLOUR	SUB-COL	0-63	32	ADJ	
SUB BRIGHTNESS	SUB-BRI	0-63	32	ADJ	
SUB TINT	SUB-TINT	0-63	32	ADJ	
SUB SHARPNESS	SUB-SHP	0-63	32	ADJ	
MAX HOTEL VOLUME	HTL-VOL	0-63	32	ADJ	
HOTEL PROGRAM NUMBER	HTL-PRG	0-99 OR>99FOR NONE	255	FIX	
OSD GRB REFERENCE	RGB	0-15	15	FIX	
BLACK LEVEL OFF-SET R	CUT-R	0-15	8	FIX	
BLACK LEVEL OFF-SET B	CUT-B	0-15	8	FIX	
CATHODE DRIVE LEVEL	CDL	0-15	0	FIX	
Y-DELAY TIME FOR PAL(TV) [YD]	DL-PT	0-15	12	FIX	
Y-DELAY TIME FOR SECAM(TV) [YD]	DL-ST	0-15	15	FIX	
Y-DELAY TIME FOR N358 (TV) [YD]	DL-3T	0-15	12	FIX	
Y-DELAY TIME FOR N443 (TV) [YD]	DL-4T	0-15	12	FIX	
Y-DELAY TIME FOR B/W (TV) [YD]	DL-TV	0-15	12	FIX	
Y-DELAY TIME FOR PAL (AV) [YD]	DL-PA	0-15	12	FIX	
Y-DELAY TIME FOR SECAM (AV) [YD]	DL-SA	0-15	15	FIX	
Y-DELAY TIME FOR N358 (AV) [YD]	DL-3A	0-15	12	FIX	
Y-DELAY TIME FOR N443 (AV) [YD]	DL-4A	0-15	12	FIX	
Y-DELAY TIME FOR B/W (AV) [YD]	DL-AV	0-15	12	FIX	
COLOUR OFFSET (PAL)	COL-OP	0-15	8	FIX	
COLOUR OFFSET (SECAM)	COL-OS	0-15	8	FIX	
COLOUR OFFSET (NTSC358)	COL-O3	0-15	8	FIX	AFTER SUB COL *4
COLOUR OFFSET (NTSC443)	COL-O4	0-15	8	FIX	AFTER SUB COL *4
SHARPNESS OFFSET (PAL)	SHP-OP	0-15	8	FIX	
SHARPNESS OFFSET (SECAM)	SHP-OS	0-15	8	FIX	AFTER SUB COL *4

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EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ	REMARK
SHARPNESS OFFSET (NTSC358)	SHP-O3	0-15	12	FIX	
SHARPNESS OFFSET (NTSC443)	SHP-O4	0-15	8	FIX	
VERTICAL SCAN DISABLE	VSD	0(DISABLE)/1(ENABLE)	0	FIX	
BLACK STRETCH	BKS	0(DISABLE)/1(ENABLE)	1	FIX	
AUTOMATIC VOLUME LEVELING	AVL	0(DISABLE)/1(ENABLE)	1	FIX	
FAST FILTER IF-PLL	FFI	0(DISABLE)/1(ENABLE)	0	FIX	
ENABLE VERTICAL GUARD (RGB BLANKING)	EVG	0(DISABLE)/1(ENABLE)	1	FIX	ONLY BLK
EHT TRACKING MODE (HCO)	EHT	0(DISABLE)/1(ENABLE)	1	FIX	
OVERSCAN SWITCH OFF	OSO	0(DISABLE)/1(ENABLE)	0	FIX	
AUTO COLOUR LIMIT	ACL	0(DISABLE)/1(ENABLE)	0	FIX	
FORCED COLOUR LIMIT	FCO	0(DISABLE)/1(ENABLE)	0	FIX	
SOUND SYSTEM MS-M		0(DISABLE)/1(ENABLE)	0	*1	
SOUND SYSTEM DK	S-DK	0(DISABLE)/1(ENABLE)	0	*1	
SOUND SYSTEM I	S-I	0(DISABLE)/1(ENABLE)	0	*1	
SOUND SYSTEM BG	S-BG	0(DISABLE)/1(ENABLE)	1	*1	
PLAYBACK SECAM	P-SECAM	0(DISABLE)/1(ENABLE)	1	*1	
FE (RF) NTSC 3.58	F-N358	0(DISABLE)/1(ENABLE)	0	*1	
FE (RF) NTSC 4.43	F-N443	0(DISABLE)/1(ENABLE)	1	*1	
FE (RF) SECAM	F-SECAM	0(DISABLE)/1(ENABLE)	1	*1	
VIDEO MUTE AT IDENT LOSS	VMI	0(DISABLE)/1(ENABLE)	1	FIX	
VIDEO MUTE AT PROGRAM/SOURCE CHANGE	VMC	0(DISABLE)/1(ENABLE)	1	FIX	
HOTEL MODE	HTL	0(DISABLE)/1(ENABLE)	0	FIX	
REDUCED FM DEMODULATOR GAIN FORBTSC SIGNAL	BTSC	0(DISABLE)/1(ENABLE)	0	FIX	
NUMBER OF EXTERNAL AV SOURCE	AV	0 FOR1 AV/1 FOR 2AV	1	FIX	
FM WINDOW SELECTION	FMWS	0(DISABLE)/1(ENABLE)	0	FIX	
SOUND MUTE BIT 0	SM0	0(DISABLE)/1(ENABLE)	1	FIX	
SOUND MUTE BIT 1	SM1	0(DISABLE)/1(ENABLE)	0	FIX	
THAI LANGUAGE	THA	0(DISABLE)/1(ENABLE)	0	*2	
ARABIC LANGUAGE	ARA	0(DISABLE)/1(ENABLE)	0	*2	
MALAY LANGUAGE	MAL	0(DISABLE)/1(ENABLE)	0	*2	
CHINESE LANGUAGE	CHI	0(DISABLE)/1(ENABLE)	0	*2	
FRENCH LANGUAGE	FRE	0(DISABLE)/1(ENABLE)	0	*2	
RUSSIAN LANGUAGE	RUS	0(DISABLE)/1(ENABLE)	0	*2	
FORCED V-SYNC SLICING LEVEL	FSL	0(DISABLE)/1(ENABLE)	0	FIX	
SYNC OF OSD	HP2	0(DISABLE)/1(ENABLE)	0	FIX	
RESERVED FOR LATAM:ODER:BRAZIL/ARGENTINA	OBA	0(BRAZIL)/1(ARGENTINA)	0	FIX	
BILINGUAL	BIL	0(DISABLE)/1(ENABLE)	0	FIX	
IF AGC SPEED BIT 0	AGC0	0(DISABLE)/1(ENABLE)	1	FIX	
IF AGC SPEED BIT 1	AGC1	0(DISABLE)/1(ENABLE)	0	FIX	
PHI-1 TIME CONSTANT (RF)	FOA-FE	0(DISABLE)/1(ENABLE)	0	FIX	
PHI-1 TIME CONSTANT (RF)	FOB-FE	0(DISABLE)/1(ENABLE)	0	FIX	
PHI-1 TIME CONSTANT (OFF AIR)	FOA-AV	0(DISABLE)/1(ENABLE)	1	FIX	
PHI-1 TIME CONSTANT (OFF AIR)	FOB-AV	0(DISABLE)/1(ENABLE)	1	FIX	

Note :

Fixed data, please do not change without specific instruction.

*1: Please refer to page 7.

*2: Please refer to page 7.

*3: Service mode "SUB CONTRAST" initial data=50

20A1-w only

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INITIAL SETTING

(1) In service mode, After execute select POS 1, store the following tuning data in E²PROM.

MCL1			MCL2		
CH-No.	Fv (MHz)	SOUND SYS	CH-No.	Fv (MHz)	SOUND SYS
0			0		
1	48.25	B/G	1	46.25	B/G
2	62.25	B/G	2	64.25	B/G
3	77.25	D/K	3	86.25	B/G
4	175.25	B/G	4	95.25	B/G
5	182.25	B/G	5	138.25	B/G
6	183.25	D/K	6	175.25	B/G
7	191.25	D/K	7	182.25	B/G
8	196.25	B/G	8	189.25	B/G
9	210.25	B/G	9	196.25	B/G
10	224.25	B/G	10	209.25	B/G
11	471.25	B/G	11	216.25	B/G
12	487.25	I	12		
13	503.25	B/G	13		
14	575.25	B/G	14		
15	599.25	B/G	15		
16	621.25	M	16		
17	639.25	D/K	17		
18	703.25	B/G	18	527.25	B/G
19	735.25	I	19	847.25	B/G
20	767.25	B/G	20	48.25	B/G
21	815.25	B/G	21	175.25	B/G
22	855.25	I	22	210.25	B/G
23	855.25	B/G	23	224.25	B/G
24	55.25	M	24	575.25	B/G
25	83.25	M	25	599.25	B/G
26	183.25	M	26	767.25	B/G
27	193.25	M	27	183.25	M
28	217.25	M	28	193.25	M
29	471.25	M	29	112.25	B/G
30	477.25	M	30	168.25	B/G
31	693.25	M	31		
32	885.25	M	32	294.25	B/G
33	112.25	B/G	33	463.25	B/G
34	168.25	B/G	34	174.95	B/G
35			35	175.55	B/G
36	294.25	B/G	36		
37	463.25	B/G	37		
38			38		
39	647.25	B/G	39		
40	663.25	B/G	40		
41	679.25	B/G	41		
42	174.95	B/G	42		
43	175.55	B/G	43		

SHIPPING SETTING & CHECKING

(1) The following default data has been factory-set for the E²PROM.

ITEMS	DATA SETTING
LAST PROGRAM/CHANNEL	1
FLASHBACK PROGRAM/CH	1
DIGIT	1
C-SYSTEM	AUTO
S-SYSTEM	*1
SKIP	OFF
AFC	ON
VOLUME	1
CONTRAST	60 (MAX)
COLOUR	0 (CENTER)
BRIGHTNESS	0 (CENTER)
TINT	0 (CENTER)
SHARPNESS	0 (CENTER)
WHITE TEMP	STANDARD
REMINDER TIMER	In-active, "---"
ON TIMER	In-active, "---"
OFF TIMER	In-active, "---"
LAST POWER	POWER-ON
LANGUAGE	*1
BLUE BACK MUTE	OFF
HOTEL MODE	OFF

*1: Please refer defaults for LANGUAGE and SOUND SYSTEM per MODEL as follows,

MODEL	LANGUAGE	SOUND SYSTEM
1	CHINESE	D/K
2	CHINESE	I
3	ENGLISH	B/G
4	ARABIC	B/G
5	RUSSIAN	D/K
6	MALAY	B/G
7	FRENCH	D/K

FACTORY SETTINGS BY MODELS (Reference: Geomagnetism Adjustment)

MODEL	Geomagnetism (H,V) nT		Background	Lang.	S-SYS	Lang. QTY
A	30,000	20,000	12,300°K	CHINESE	D/K	*(1)
B	30,000	20,000	12,300°K	CHINESE	I	*(1)
C (Singapore)	-10,000	40,000	12,300°K	ENGLISH	B/G	*(1)
E	30,000	20,000	12,300°K	ARABIC	B/G	*(2)
F	30,000	20,000	12,300°K	ARABIC	B/G	*(3)
F*	-10,000	40,000	12,300°K	ENGLISH	B/G	*(3)
G	30,000	20,000	12,300°K	ARABIC	B/G	*(3)
*G (Africa)	-10,000	40,000	12,300°K	ENGLISH	B/G	*(3)
J	45,000	20,000	7,500°K	RUSSIAN	D/K	*(4)

Note :

*1: ENGLISH/CHINESE/MALAY

*2: ENGLISH/FRENCH/ARABIC/RUSSIAN

*3: ENGLISH/CHINESE/FRENCH/ARABIC/MALAY

*4: ENGLISH/RUSSIAN

*5: ENGLISH/CHINESE/FRENCH/ARABIC/MALAY/RUSSIAN

*OSD Lang. must be set in service mode, but it's better to write in E²PROM.

HEADPHONE JACK CHECKING (FOR B & C MODELS ONLY)

NO.	Adjustment part	Adjusting procedure and conditions	Waveform and others
1	HEADPHONE OUTPUT CHECKING	1. Receive PAL COLOUR PAR with SOUND 400Hz, 100% MODULATION (±50kHz Dev). 2. Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker.	

MEMORY MAP

ADDRESS (HEX)	DATA								MICO DEFAULT	EEPROM RANGE	EEPROM WRITE/CPU	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
00										55	00-FF						
01										4F	00-FF						
02										43	00-FF						
03										A1	00-FF						
04																	
05																	
06										0E	00-3F						
07										20	00-3F						
08										20	00-3F						
09										20	00-3F						
0A										20	00-3F						
0B										20	00-3F						
0C										20	00-3F						
0D										20	00-3F						
0E										20	00-3F						
0F										20	00-3F						
10										20	00-3F						
11										20	00-3F						
12										00	00-3F						
13																	
14																	
15																	
16										20	00-3F						
17										20	00-3F						
18										20	00-3F						
19										20	00-3F						
1A										20	00-3F						
1B										20	00-3F						
1C										19	00-3F						
1D										20	00-3F						
1E										20	00-3F						
1F																	
20																	
21																	
22										3F	00-3F						
23										3F	00-3F						
24										20	00-3F						
25										20	00-3F						
26										20	00-3F						
27										20	00-3F						
28										20	00-3F						
29										FF	00-FF						
2A																	
2B																	
2C																	
2D										0F	00-0F						
2E										08	00-0F						
2F										08	00-0F						
30										00	00-0F						
31										0C	00-0F						
32										0F	00-0F						
33										0C	00-0F						
34										0C	00-0F						
35										0C	00-0F						
36										0C	00-0F						
37										0F	00-0F						
38										0C	00-0F						
39										0C	00-0F						
3A										0C	00-0F						
3B										08	00-0F						
3C										08	00-0F						
3D										04	00-0F						
3E										04	00-0F						
3F										08	00-0F						
MODEL										MODEL							
LETTER NO.										LETTER NO.							

ADDRESS (HEX)	DATA								MICO DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
40					SHARPNESS-OFFSET (SECAM)				04	00-0F							
41					SHARPNESS-OFFSET (N443)				0C	00-0F							
42					SHARPNESS-OFFSET (N358)				08	00-0F							
43																	
44	FC0	ACL	OSO	EHT	EVG	FFI	AVL	BKS			00-FF						
45	SCM	N443	N358	PB-SEC	BG	I	DK	M			00-FF						
46		SM	FMWS	AV	BTSC	HTL	VMC	VMI			00-FF						
47	HP2	FSL	RUS	FRA	CHN	MLY	ARB	THA			00-FF						
48					AGC		BIL	OBA			00-FF						
49																	
4A																	
4B																	
4C					VOLUME				01	00-3C							
4D					CONTRAST				3C	00-3C							
4E					COLOUR				1E	00-3C							
4F					BRIGHTNESS				1E	00-3C							
50					TINT				1E	00-3C							
51					SHARPNESS				1E	00-3C							
52																	
53																	
54																	
55					POSITION(AV1/AV2)				01	00-FF							
56					FAV-POS A				0A	00-FF							
57					FAV-POS B				14	00-FF							
58					FAV-POS C				1E	00-FF							
59					FAV-POS D				28	00-FF							
5A																	
5B																	
5C					POWER				00	00-01							
5D					WHITE-TEMP				00	00-02							
5E					BLUE BACK				00	00-01							
5F					LANGUAGE				00	00-07							
60					DIGIT				00	00-01							
61																	
62	SKIP 0	SKIP 1	SKIP 2	SKIP 3	SKIP 4	SKIP 5	SKIP 6	SKIP 7	80	00-FF							
63	SKIP 8	SKIP 9	SKIP 10	SKIP 11	SKIP 12	SKIP 13	SKIP 14	SKIP 15	00	00-FF							
64	SKIP 16	SKIP 17	SKIP 18	SKIP 19	SKIP 20	SKIP 21	SKIP 22	SKIP 23	00	00-FF							
65	SKIP 24	SKIP 25	SKIP 26	SKIP 27	SKIP 28	SKIP 29	SKIP 30	SKIP 31	00	00-FF							
66	SKIP 32	SKIP 33	SKIP 34	SKIP 35	SKIP 36	SKIP 37	SKIP 38	SKIP 39	00	00-FF							
67	SKIP 40	SKIP 41	SKIP 42	SKIP 43	SKIP 44	SKIP 45	SKIP 46	SKIP 47	00	00-FF							
68	SKIP 48	SKIP 49	SKIP 50	SKIP 51	SKIP 52	SKIP 53	SKIP 54	SKIP 55	00	00-FF							
69	SKIP 56	SKIP 57	SKIP 58	SKIP 59	SKIP 60	SKIP 61	SKIP 62	SKIP 63	00	00-FF							
6A	SKIP 64	SKIP 65	SKIP 66	SKIP 67	SKIP 68	SKIP 69	SKIP 70	SKIP 71	00	00-FF							
6B	SKIP 72	SKIP 73	SKIP 74	SKIP 75	SKIP 76	SKIP 77	SKIP 78	SKIP 79	00	00-FF							
6C	SKIP 80	SKIP 81	SKIP 82	SKIP 83	SKIP 84	SKIP 85	SKIP 86	SKIP 87	00	00-FF							
6D	SKIP 88	SKIP 89	SKIP 90	SKIP 91	SKIP 92	SKIP 93	SKIP 94	SKIP 95	00	00-FF							
6E	SKIP 96	SKIP 97	SKIP 98	SKIP 99					00	00-FF							
6F																	
70																	
71																	
72																	
73																	
74	TUNING FREQUENCY (HIGHER PART)											S-SYS				POS 0	
75	TUNING FREQUENCY (LOWER PART)											000:BG					
76	S-SYS				AFT	(auto)			C-SYS		001:I						
77	TUNING FREQUENCY (HIGHER PART)											010:DK				POS 1	
78	TUNING FREQUENCY (LOWER PART)											011:M					
79	S-SYS				AFT	(auto)			C-SYS								
7A	TUNING FREQUENCY (HIGHER PART)											AFT				POS 2	
7B	TUNING FREQUENCY (LOWER PART)											0:OFF					
7C	S-SYS				AFT	(auto)			C-SYS		1:ON						
7D	TUNING FREQUENCY (HIGHER PART)															POS 3	
7E	TUNING FREQUENCY (LOWER PART)																
7F	S-SYS				AFT	(auto)			C-SYS								
MODEL											MODEL						

ADDRESS (HEX)	DATA								MICO DEFAULT	EEPROM RANGE	EEPROM WRITE(P)	CHASSIS		CTV FINAL		LAST INITIAL		REMARK			
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA					
80	TUNING FREQUENCY (HIGHER PART)																				
81	TUNING FREQUENCY (LOWER PART)																				
82	S-SYS		AFT		(auto)		C-SYS										POS 4				
83	TUNING FREQUENCY (HIGHER PART)																				
84	TUNING FREQUENCY (LOWER PART)																POS 5				
85	S-SYS		AFT		(auto)		C-SYS														
86	TUNING FREQUENCY (HIGHER PART)																POS 6				
87	TUNING FREQUENCY (LOWER PART)																				
88	S-SYS		AFT		(auto)		C-SYS														
89	TUNING FREQUENCY (HIGHER PART)																POS 7				
8A	TUNING FREQUENCY (LOWER PART)																				
8B	S-SYS		AFT		(auto)		C-SYS														
8C	TUNING FREQUENCY (HIGHER PART)																POS 8				
8D	TUNING FREQUENCY (LOWER PART)																				
8E	S-SYS		AFT		(auto)		C-SYS														
8F	TUNING FREQUENCY (HIGHER PART)																POS 9				
90	TUNING FREQUENCY (LOWER PART)																				
91	S-SYS		AFT		(auto)		C-SYS														
92	TUNING FREQUENCY (HIGHER PART)																POS 10				
93	TUNING FREQUENCY (LOWER PART)																				
94	S-SYS		AFT		(auto)		C-SYS														
95	TUNING FREQUENCY (HIGHER PART)																POS 11				
96	TUNING FREQUENCY (LOWER PART)																				
97	S-SYS		AFT		(auto)		C-SYS														
98	TUNING FREQUENCY (HIGHER PART)																POS 12				
99	TUNING FREQUENCY (LOWER PART)																				
9A	S-SYS		AFT		(auto)		C-SYS														
9B	TUNING FREQUENCY (HIGHER PART)																POS 13				
9C	TUNING FREQUENCY (LOWER PART)																				
9D	S-SYS		AFT		(auto)		C-SYS														
9E	TUNING FREQUENCY (HIGHER PART)																POS 14				
9F	TUNING FREQUENCY (LOWER PART)																				
A0	S-SYS		AFT		(auto)		C-SYS														
A1	TUNING FREQUENCY (HIGHER PART)																POS 15				
A2	TUNING FREQUENCY (LOWER PART)																				
A3	S-SYS		AFT		(auto)		C-SYS														
A4	TUNING FREQUENCY (HIGHER PART)																POS 16				
A5	TUNING FREQUENCY (LOWER PART)																				
A6	S-SYS		AFT		(auto)		C-SYS														
A7	TUNING FREQUENCY (HIGHER PART)																POS 17				
A8	TUNING FREQUENCY (LOWER PART)																				
A9	S-SYS		AFT		(auto)		C-SYS														
AA	TUNING FREQUENCY (HIGHER PART)																POS 18				
AB	TUNING FREQUENCY (LOWER PART)																				
AC	S-SYS		AFT		(auto)		C-SYS														
AD	TUNING FREQUENCY (HIGHER PART)																POS 19				
AE	TUNING FREQUENCY (LOWER PART)																				
AF	S-SYS		AFT		(auto)		C-SYS														
B0	TUNING FREQUENCY (HIGHER PART)																POS 20				
B1	TUNING FREQUENCY (LOWER PART)																				
B2	S-SYS		AFT		(auto)		C-SYS														
B3	TUNING FREQUENCY (HIGHER PART)																POS 21				
B4	TUNING FREQUENCY (LOWER PART)																				
B5	S-SYS		AFT		(auto)		C-SYS														
B6	TUNING FREQUENCY (HIGHER PART)																POS 22				
B7	TUNING FREQUENCY (LOWER PART)																				
B8	S-SYS		AFT		(auto)		C-SYS														
B9	TUNING FREQUENCY (HIGHER PART)																POS 23				
BA	TUNING FREQUENCY (LOWER PART)																				
BB	S-SYS		AFT		(auto)		C-SYS														
BC	TUNING FREQUENCY (HIGHER PART)																POS 24				
BD	TUNING FREQUENCY (LOWER PART)																				
BE	S-SYS		AFT		(auto)		C-SYS														
BF	TUNING FREQUENCY (HIGHER PART)																POS 25				
MODEL									MODEL												

ADDRESS (HEX)	DATA								MICO DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
C0	TUNING FREQUENCY (LOWER PART)																POS 25
C1	S-SYS AFT (auto) C-SYS																
C2	TUNING FREQUENCY (HIGHER PART)																POS 26
C3	TUNING FREQUENCY (LOWER PART)																
C4	S-SYS AFT (auto) C-SYS																
C5	TUNING FREQUENCY (HIGHER PART)																POS 27
C6	TUNING FREQUENCY (LOWER PART)																
C7	S-SYS AFT (auto) C-SYS																
C8	TUNING FREQUENCY (HIGHER PART)																POS 28
C9	TUNING FREQUENCY (LOWER PART)																
CA	S-SYS AFT (auto) C-SYS																
CB	TUNING FREQUENCY (HIGHER PART)																POS 29
CC	TUNING FREQUENCY (LOWER PART)																
CD	S-SYS AFT (auto) C-SYS																
CE	TUNING FREQUENCY (HIGHER PART)																POS 30
CF	TUNING FREQUENCY (LOWER PART)																
D0	S-SYS AFT (auto) C-SYS																
D1	TUNING FREQUENCY (HIGHER PART)																POS 31
D2	TUNING FREQUENCY (LOWER PART)																
D3	S-SYS AFT (auto) C-SYS																
D4	TUNING FREQUENCY (HIGHER PART)																POS 32
D5	TUNING FREQUENCY (LOWER PART)																
D6	S-SYS AFT (auto) C-SYS																
D7	TUNING FREQUENCY (HIGHER PART)																POS 33
D8	TUNING FREQUENCY (LOWER PART)																
D9	S-SYS AFT (auto) C-SYS																
DA	TUNING FREQUENCY (HIGHER PART)																POS 34
DB	TUNING FREQUENCY (LOWER PART)																
DC	S-SYS AFT (auto) C-SYS																
DD	TUNING FREQUENCY (HIGHER PART)																POS 35
DE	TUNING FREQUENCY (LOWER PART)																
DF	S-SYS AFT (auto) C-SYS																
E0	TUNING FREQUENCY (HIGHER PART)																POS 36
E1	TUNING FREQUENCY (LOWER PART)																
E2	S-SYS AFT (auto) C-SYS																
E3	TUNING FREQUENCY (HIGHER PART)																POS 37
E4	TUNING FREQUENCY (LOWER PART)																
E5	S-SYS AFT (auto) C-SYS																
E6	TUNING FREQUENCY (HIGHER PART)																POS 38
E7	TUNING FREQUENCY (LOWER PART)																
E8	S-SYS AFT (auto) C-SYS																
E9	TUNING FREQUENCY (HIGHER PART)																POS 39
EA	TUNING FREQUENCY (LOWER PART)																
EB	S-SYS AFT (auto) C-SYS																
EC	TUNING FREQUENCY (HIGHER PART)																POS 40
ED	TUNING FREQUENCY (LOWER PART)																
EE	S-SYS AFT (auto) C-SYS																
EF	TUNING FREQUENCY (HIGHER PART)																POS 41
F0	TUNING FREQUENCY (LOWER PART)																
F1	S-SYS AFT (auto) C-SYS																
F2	TUNING FREQUENCY (HIGHER PART)																POS 42
F3	TUNING FREQUENCY (LOWER PART)																
F4	S-SYS AFT (auto) C-SYS																
F5	TUNING FREQUENCY (HIGHER PART)																POS 43
F6	TUNING FREQUENCY (LOWER PART)																
F7	S-SYS AFT (auto) C-SYS																
F8	TUNING FREQUENCY (HIGHER PART)																POS 44
F9	TUNING FREQUENCY (LOWER PART)																
FA	S-SYS AFT (auto) C-SYS																
FB	TUNING FREQUENCY (HIGHER PART)																POS 45
FC	TUNING FREQUENCY (LOWER PART)																
FD	S-SYS AFT (auto) C-SYS																
FE																	POS 46
FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

ADDRESS (HEX)	DATA								MICO DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
100																	POS 46
101				TUNING FREQUENCY (HIGHER PART)													POS 47
102				TUNING FREQUENCY (LOWER PART)													
103		S-SYS		AFT	(auto)			C-SYS									
104				TUNING FREQUENCY (HIGHER PART)													POS 48
105				TUNING FREQUENCY (LOWER PART)													
106		S-SYS		AFT	(auto)			C-SYS									
107				TUNING FREQUENCY (HIGHER PART)													POS 49
108				TUNING FREQUENCY (LOWER PART)													
109		S-SYS		AFT	(auto)			C-SYS									
10A				TUNING FREQUENCY (HIGHER PART)													POS 50
10B				TUNING FREQUENCY (LOWER PART)													
10C		S-SYS		AFT	(auto)			C-SYS									
10D				TUNING FREQUENCY (HIGHER PART)													POS 51
10E				TUNING FREQUENCY (LOWER PART)													
10F		S-SYS		AFT	(auto)			C-SYS									
110				TUNING FREQUENCY (HIGHER PART)													POS 52
111				TUNING FREQUENCY (LOWER PART)													
112		S-SYS		AFT	(auto)			C-SYS									
113				TUNING FREQUENCY (HIGHER PART)													POS 53
114				TUNING FREQUENCY (LOWER PART)													
115		S-SYS		AFT	(auto)			C-SYS									
116				TUNING FREQUENCY (HIGHER PART)													POS 54
117				TUNING FREQUENCY (LOWER PART)													
118		S-SYS		AFT	(auto)			C-SYS									
119				TUNING FREQUENCY (HIGHER PART)													POS 55
11A				TUNING FREQUENCY (LOWER PART)													
11B		S-SYS		AFT	(auto)			C-SYS									
11C				TUNING FREQUENCY (HIGHER PART)													POS 56
11D				TUNING FREQUENCY (LOWER PART)													
11E		S-SYS		AFT	(auto)			C-SYS									
11F				TUNING FREQUENCY (HIGHER PART)													POS 57
120				TUNING FREQUENCY (LOWER PART)													
121		S-SYS		AFT	(auto)			C-SYS									
122				TUNING FREQUENCY (HIGHER PART)													POS 58
123				TUNING FREQUENCY (LOWER PART)													
124		S-SYS		AFT	(auto)			C-SYS									
125				TUNING FREQUENCY (HIGHER PART)													POS 59
126				TUNING FREQUENCY (LOWER PART)													
127		S-SYS		AFT	(auto)			C-SYS									
128				TUNING FREQUENCY (HIGHER PART)													POS 60
129				TUNING FREQUENCY (LOWER PART)													
12A		S-SYS		AFT	(auto)			C-SYS									
12B				TUNING FREQUENCY (HIGHER PART)													POS 61
12C				TUNING FREQUENCY (LOWER PART)													
12D		S-SYS		AFT	(auto)			C-SYS									
12E				TUNING FREQUENCY (HIGHER PART)													POS 62
12F				TUNING FREQUENCY (LOWER PART)													
130		S-SYS		AFT	(auto)			C-SYS									
131				TUNING FREQUENCY (HIGHER PART)													POS 63
132				TUNING FREQUENCY (LOWER PART)													
133		S-SYS		AFT	(auto)			C-SYS									
134				TUNING FREQUENCY (HIGHER PART)													POS 64
135				TUNING FREQUENCY (LOWER PART)													
136		S-SYS		AFT	(auto)			C-SYS									
137				TUNING FREQUENCY (HIGHER PART)													POS 65
138				TUNING FREQUENCY (LOWER PART)													
139		S-SYS		AFT	(auto)			C-SYS									
13A				TUNING FREQUENCY (HIGHER PART)													POS 66
13B				TUNING FREQUENCY (LOWER PART)													
13C		S-SYS		AFT	(auto)			C-SYS									
13D				TUNING FREQUENCY (HIGHER PART)													POS 67
13E				TUNING FREQUENCY (LOWER PART)													
13F		S-SYS		AFT	(auto)			C-SYS									
MODEL																	
LETTER NO.																	

15-2

**20A1/2, 20AG1/2
21A1/2, 21AG1/2**

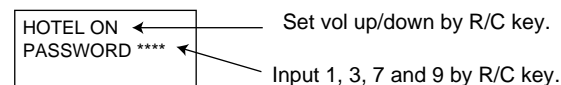
ADDRESS (HEX)	DATA								MICO DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
1C0																	
1C1																	
1C2																	
1C3																	
1C4																	
1C5																	
1C6																	
1C7																	
1C8																	
1C9																	
1CA																	
1CB																	
1CC																	
1CD																	
1CE																	
1CF																	
1D0																	
1D1																	
1D2																	
1D3																	
1D4																	
1D5																	
1D6																	
1D7																	
1D8																	
1D9																	
1DA																	
1DB																	
1DC																	
1DD																	
1DE																	
1DF																	
1E0																	
1E1																	
1E2																	
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1F6																	
1F7																	
1F8																	
1F9																	
1FA																	
1FB																	
1FC																	
1FD																	
1FE																	
1FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

UA1 HOTEL MODE APPLICATION

How to enable/disable the "Hotel Mode" ?

Ans: a) Press the R/C (FUNCTION) {1} key until language selection appear, within five second press the (one/two digit) {2} key and keep pressing it for five second, then you can see the hotel mode with four digits password.

b) Key in the four digits password starting with number "1", "3", "7", "9", then the hotel mode will be enable, you can switch on/off the hotel mode by using R/C (volume up/down) {3} key.



* We recommend

Before set the hotel mode, it is better to choose ch 1 & set s-vol level Up to 75% full scale. After set hotel mode, starting channel will be always ch 1 & maximum sound level out will be set the half of full scale.

* If you set hotel mode in AV, starting channel will be the last ch which you received before power off (same as normal operation)

#1 Ch 1 is your selected channel for hotel mode.

CONDITION:

When using hotel mode, user can control "contrast", "brightness", "sharpness" and "tint" function.

But after power off, it will return to the initial setting.

You can't use:--

- Preset mode
- Fine tuning
- Skip mode
- System selection

The others function is allowed to be used.