

ADJUSTMENT INSTRUCTIONS

i Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances.
5. Unless otherwise noted, set the line voltage to 230Vac; 10%, 50Hz.
5. The adjustment of TV should be performed after warming up for 15 minutes.

i Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

i Focus Adjustment

Test Point	: Observing Display
Adjust	: Focus control of FBT

- 1) Tune the TV set to receive a digital pattern.
- 2) Adjust the upper Focus volume of FBT for the best focus of vertical line B.
- 3) Adjust the lower Focus volume of FBT for the best focus of area A.
- 4) Repeat above step 2) and 3) for the best overall focus.

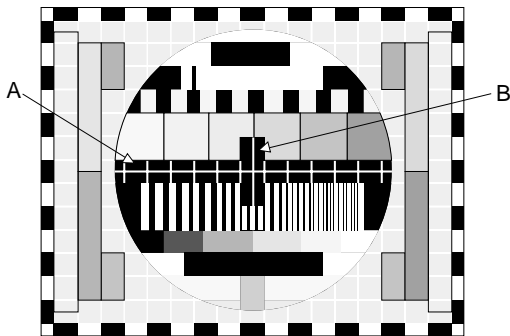


Fig. 1

i Screen Voltage Adjustment

- 1) Turn the TV set on.
- 2) This adjustment should be performed after warming up for more than 15 minutes.
- 3) Enter the SVC mode by pressing the SVC button on remote controller and make a horizontal line by pressing the H-LINE button.
- 4) Finish adjusting at the point when the horizontal line appears again after adjusting screen volume until the horizontal line disappear.

i White Balance Adjustment

NOTE : This adjustment should be performed after screen voltage adjustment.

- 1) Tune the TV set to receive an 100% white pattern.
- 2) Press Channel UP/DOWN button for desirous function Adjustment.
- 3) Press Volume UP/DOWN button to adjust the data.
- 4) Adjust until "CONTRAST" and "BRIGHT" become 3.5 Ft_L
- 5) Enter the SVC mode by pressing the SVC button.
- 6) Adjust the Y value of High Light with G-DRIVE and adjust the X value with B-DRIVE until they have the color coordinate of High Light as below.
- 7) Adjust until "CONTRAST" and "BRIGHT" become 4.5 Ft_L
- 8) Enter the adjustment mode by pressing the SVC button.
- 9) Adjust the Y value of Low Light with G-CUTOFF and adjust the X value with B-CUTOFF until they have the color coordinate of Low Light as below.
- 10) Repeat adjusting until the color coordinate of High and Low Light is satisfied.
- 11) Check the adjusted color coordinate with a white balance meter.

Color Tem.	X	Y	Memo
13000K	266 _{i 8}	273 _{i 8}	NON EU
9000K	288 _{i 8}	295 _{i 8}	EU

Menu	LG 29" FLAT	LG 29" S/F	LG 32" FLAT
CR			
CG			
CB			
WR			
WG			
WB			

i Deflection Data Adjustment

- 1) Deflection Data Adjustment should be performed with the remote controller for handset.
- 2) Enter the SVC mode by pressing the SVC button.
- 3) Enter the Deflection Adjustment mode by pressing the ADJUST button.
- 4) Press the Channel UP/DOWN button to select adjustment items.
- 5) Press the Volume UP/DOWN button to adjust the data.
- 6) The TV set receives PAL-B/G Digital pattern.

VS (Vertical Shift)

Adjust so that the horizontal center line of a digital circle pattern is in accord with geometric horizontal center of the CPT.

VA (Vertical Amplitude)

Adjust so that the circle of a digital circle pattern may be located within the effective screen of the CPT.

HS (Horizontal Shift)

Adjust so that the vertical center line of a digital circle pattern is in accord with geometric vertical center of the CPT.

EW (Horizontal Width)

Adjust so that a digital circle pattern looks like exact circle.

A-BOW

In line adjustment, not to change default value is basic.

A-ANG

In angle adjustment, adjust until inclination of left and right screen should be precise.

EP (East-west Parabolar)

Adjust so that middle portion of the outermost left and right vertical line looks like parallel with vertical lines of the CPT.

UC

Adjust until the vertical lines at upper left and right corner of the screen become straight after EP adjustment.

LC

Adjust until the vertical lines at lower left and right corner of the screen become straight after EP adjustment.

SC (Vertical "S" Correction)

Adjust so that all distance between each horizontal lines are to be the same.

VL (Vertical Linearity)

Adjust so that the boundary line between upper and lower half is in accord with geometric horizontal center of the CPT.

Menu	Range	PAL	NTSC	VGA
VS	0-003F	22	29	0F
VA	0-003F	32	2C	0F
U-VL	0-000F	09	09	2E
L-VL	0-000F	0A	05	0A
HS	0-003F	1F	2A	1D
EW	0-003F	25	25	19
A-BOW	0-000F	07	07	07
A-ANG	0-000F	07	07	16
ET	0-000F	06	06	08
EP	0-003F	0D	0D	08
UC	0-003F	1C	1A	3F
LC	0-003F	1D	1F	3F
VL	0-000F	06	09	0D
SC	0-000F	00	01	0B
V-ASP	0-003F	25	24	00

OPTION Adjustment (SVC MODE:OPTION-1, OPTION-2, OPTION-3,Teletext)

- 1) Press YELLOW button or OP1,OP2,OP3,OP4 button on SVC Remote Controller .
- 2) Input data directly by the buttons corresponded with OPTION1 ???(0~127), OPTION2 ??(0~63), OPTION3 ???(0~127) and TELETEXT ???(6...131).
- 3) Select each OPTION function by the CH Up/Down button and then set up each OPTION by the VOL Up/Down button.

Table 1. OPTION 1 Function

Option	Code	Function	Remark
200 PR	0	100 PROGRAM	
	1	200 PROGRAM	
TSEAR	0	Without TURBO SEARCH	
	1	With TURBO SEARCH	
I/II SV	0	NO SAVE DUAL/SOUND Condition	EU
	1	SAVE DUAL/SOUND Condition	NON-EU
TOP	0	FLOP TEXT	WITHOUT TEXT (TOP=0)
	1	TOP TEXT	
EYE	0	WITHOUT EYE	
	1	WITH EYE	
A2 ST	0	NICAM	
	1	NICAM/FM STEREO	
SYS	0	BG//DK	
	1	BG/L	
	2	BG//DK/M	
	3	RESERVED	

Table 2. OPTION 1 CODE Data

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2
3	0	0	0	0	0	0	3
4	0	0	0	0	0	1	0
5	0	0	0	0	0	1	1
6	0	0	0	0	0	1	2
7	0	0	0	0	0	1	3
8	0	0	0	0	1	0	0
9	0	0	0	0	1	0	1
10	0	0	0	0	1	0	2
11	0	0	0	0	1	0	3
12	0	0	0	0	1	1	0
13	0	0	0	0	1	1	1
14	0	0	0	0	1	1	2
15	0	0	0	0	1	1	3
16	0	0	0	1	0	0	0

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
17	0	0	0	1	0	0	1
18	0	0	0	1	0	0	2
19	0	0	0	1	0	0	3
20	0	0	0	1	0	1	0
21	0	0	0	1	0	1	1
22	0	0	0	1	0	1	2
23	0	0	0	1	0	1	3
24	0	0	0	1	1	0	0
25	0	0	0	1	1	0	1
26	0	0	0	1	1	0	2
27	0	0	0	1	1	0	3
28	0	0	0	1	1	1	0
29	0	0	0	1	1	1	1
30	0	0	0	1	1	1	2
31	0	0	0	1	1	1	3
32	0	0	1	0	0	0	0
33	0	0	1	0	0	0	1
34	0	0	1	0	0	0	2
35	0	0	1	0	0	0	3
36	0	0	1	0	0	1	0
37	0	0	1	0	0	1	1
38	0	0	1	0	0	1	2
39	0	0	1	0	0	1	3
40	0	0	1	0	1	0	0
41	0	0	1	0	1	0	1
42	0	0	1	0	1	0	2
43	0	0	1	0	1	0	3
44	0	0	1	0	1	1	0
45	0	0	1	0	1	1	1
46	0	0	1	0	1	1	2
47	0	0	1	0	1	1	3
48	0	0	1	1	0	0	0
49	0	0	1	1	0	0	1
50	0	0	1	1	0	0	2
51	0	0	1	1	0	0	3
52	0	0	1	1	0	1	0
53	0	0	1	1	0	1	1
54	0	0	1	1	0	1	2
55	0	0	1	1	0	1	3
56	0	0	1	1	1	0	0
57	0	0	1	1	1	0	1
58	0	0	1	1	1	0	2
59	0	0	1	1	1	0	3
60	0	0	1	1	1	1	0
61	0	0	1	1	1	1	1
62	0	0	1	1	1	1	2

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
63	0	0	1	1	1	1	3
64	0	1	0	0	0	0	0
65	0	1	0	0	0	0	1
66	0	1	0	0	0	0	2
67	0	1	0	0	0	0	3
68	0	1	0	0	0	1	0
69	0	1	0	0	0	1	1
70	0	1	0	0	0	1	2
71	0	1	0	0	0	1	3
72	0	1	0	0	1	0	0
73	0	1	0	0	1	0	1
74	0	1	0	0	1	0	2
75	0	1	0	0	1	0	3
76	0	1	0	0	1	1	0
77	0	1	0	0	1	1	1
78	0	1	0	0	1	1	2
79	0	1	0	0	1	1	3
80	0	1	0	1	0	0	0
81	0	1	0	1	0	0	1
82	0	1	0	1	0	0	2
83	0	1	0	1	0	0	3
84	0	1	0	1	0	1	0
85	0	1	0	1	0	1	1
86	0	1	0	1	0	1	2
87	0	1	0	1	0	1	3
88	0	1	0	1	1	0	0
89	0	1	0	1	1	0	1
90	0	1	0	1	1	0	2
91	0	1	0	1	1	0	3
92	0	1	0	1	1	1	0
93	0	1	0	1	1	1	1
94	0	1	0	1	1	1	2
95	0	1	1	0	0	1	3
96	0	1	1	0	0	0	0
97	0	1	1	0	0	0	1
98	0	1	1	0	0	0	2
99	0	1	1	0	0	0	3
100	0	1	1	0	0	1	0
101	0	1	1	0	0	1	1
102	0	1	1	0	0	1	2
103	0	1	1	0	0	1	3
104	0	1	1	0	1	0	0
105	0	1	1	0	1	0	1
106	0	1	1	0	1	0	2
107	0	1	1	0	1	0	3
108	0	1	1	0	1	1	0

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
109	0	1	1	0	1	1	1
110	0	1	1	0	1	1	2
111	0	1	1	0	1	1	3
112	0	1	1	1	0	0	0
113	0	1	1	1	0	0	1
114	0	1	1	1	0	0	2
115	0	1	1	1	0	0	3
116	0	1	1	1	0	1	0
117	0	1	1	1	0	1	1
118	0	1	1	1	0	1	2
119	0	1	1	1	0	1	3
120	0	1	1	1	1	0	0
121	0	1	1	1	1	0	1
122	0	1	1	1	1	0	2
123	0	1	1	1	1	0	3
124	0	1	1	1	1	1	0
125	0	1	1	1	1	1	1
126	0	1	1	1	1	1	2
127	0	1	1	1	1	1	3
128	1	0	0	0	0	0	0
129	1	0	0	0	0	0	1
130	1	0	0	0	0	0	2
131	1	0	0	0	0	0	3
132	1	0	0	0	0	1	0
133	1	0	0	0	0	1	1
134	1	0	0	0	0	1	2
135	1	0	0	0	0	1	3
136	1	0	0	0	1	0	0
137	1	0	0	0	1	0	1
138	1	0	0	0	1	0	2
139	1	0	0	0	1	0	3
140	1	0	0	0	1	1	0
141	1	0	0	0	1	1	1
142	1	0	0	0	1	1	2
143	1	0	0	0	1	1	3
144	1	0	0	1	0	0	0
145	1	0	0	1	0	0	1
146	1	0	0	1	0	0	2
147	1	0	0	1	0	0	3
148	1	0	0	1	0	1	0
149	1	0	0	1	0	1	1
150	1	0	0	1	0	1	2
151	1	0	0	1	0	1	3
152	1	0	0	1	1	0	0
153	1	0	0	1	1	0	1
154	1	0	0	1	1	0	2

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
155	1	0	0	1	1	0	3
156	1	0	0	1	1	1	0
157	1	0	0	1	1	1	1
158	1	0	0	1	1	1	2
159	1	0	0	1	1	1	3
160	1	0	1	0	0	0	0
161	1	0	1	0	0	0	1
162	1	0	1	0	0	0	2
163	1	0	1	0	0	0	3
164	1	0	1	0	0	1	0
165	1	0	1	0	0	1	1
166	1	0	1	0	0	1	2
167	1	0	1	0	0	1	3
168	1	0	1	0	1	0	0
169	1	0	1	0	1	0	1
170	1	0	1	0	1	0	2
171	1	0	1	0	1	0	3
172	1	0	1	0	1	1	0
173	1	0	1	0	1	1	1
174	1	0	1	0	1	1	2
175	1	0	1	0	1	1	3
176	1	0	1	1	0	0	0
177	1	0	1	1	0	0	1
178	1	0	1	1	0	0	2
179	1	0	1	1	0	0	3
180	1	0	1	1	0	1	0
181	1	0	1	1	0	1	1
182	1	0	1	1	0	1	2
183	1	0	1	1	0	1	3
184	1	0	1	1	1	0	0
185	1	0	1	1	1	0	1
186	1	0	1	1	1	0	2
187	1	0	1	1	1	0	3
188	1	0	1	1	1	1	0
189	1	0	1	1	1	1	1
190	1	0	1	1	1	1	2
191	1	0	1	1	1	1	3
192	1	1	0	0	0	0	0
193	1	1	0	0	0	0	1
194	1	1	0	0	0	0	2
195	1	1	0	0	0	0	3
196	1	1	0	0	0	1	0
197	1	1	0	0	0	1	1
198	1	1	0	0	0	1	2
199	1	1	0	0	0	1	3
200	1	1	0	0	1	0	0

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
201	1	1	0	0	1	0	1
202	1	1	0	0	1	0	2
203	1	1	0	0	1	0	3
204	1	1	0	0	1	1	0
205	1	1	0	0	1	1	1
206	1	1	0	0	1	1	2
207	1	1	0	0	1	1	3
208	1	1	0	1	0	0	0
209	1	1	0	1	0	0	1
210	1	1	0	1	0	0	2
211	1	1	0	1	0	0	3
212	1	1	0	1	0	1	0
213	1	1	0	1	0	1	1
214	1	1	0	1	0	1	2
215	1	1	0	1	1	1	3
216	1	1	0	1	1	0	0
217	1	1	0	1	1	0	1
218	1	1	0	1	1	0	2
219	1	1	0	1	1	0	3
220	1	1	0	1	1	1	0
221	1	1	0	1	1	1	1
222	1	1	0	1	1	1	2
223	1	1	1	0	0	1	3
224	1	1	1	0	0	0	0
225	1	1	1	0	0	0	1
226	1	1	1	0	0	0	2
227	1	1	1	0	0	0	3
228	1	1	1	0	0	1	0
229	1	1	1	0	0	1	1
230	1	1	1	0	0	1	2
231	1	1	1	0	0	1	3
232	1	1	1	0	1	0	0
233	1	1	1	0	1	0	1
234	1	1	1	0	1	0	2
235	1	1	1	0	1	0	3
236	1	1	1	0	1	1	0
237	1	1	1	0	1	1	1
238	1	1	1	0	1	1	2
239	1	1	1	0	1	1	3
240	1	1	1	1	0	0	0
241	1	1	1	1	0	0	1
242	1	1	1	1	0	0	2
243	1	1	1	1	0	0	3
244	1	1	1	1	0	1	0
245	1	1	1	1	0	1	1
246	1	1	1	1	0	1	2

OPTION Data	200 PR	TSEAR	I/II SV	TOP	EYE	A2 ST	SYS
247	1	1	1	1	0	1	3
248	1	1	1	1	1	0	0
249	1	1	1	1	1	0	1
250	1	1	1	1	1	0	2
251	1	1	1	1	1	0	3
252	1	1	1	1	1	1	0
253	1	1	1	1	1	1	1
254	1	1	1	1	1	1	2
255	1	1	1	1	1	1	3

Table 3. OPTION 2 Function

Option	Code	Function	Remark
ACMS	0	WITHOUT ACMS FUNTION	
	1	WITH ACMS FUNTION	
VOL	0	STANDARD CURVE	LOW STEP=>RUSH
	1	RUSHED CURVE	HIGH STEP=>SLOW
H/PHO	0	WITHOUT H/PHONE JACK	
	1	WITH H/PHONE JACK	
DVD	0	WITHOUT DVD(Y,Pb,Pr)	
	1	WITH DVD(Y,Pb,Pr)	
SAV	0		
	1	AV2 Y&C	
WOOF	0	WITHOUT WOOFER	
	1	WITH WOOFER	
VGA	0	WITHOUT VGA MODE	
	1	WITH VGA MODE	
Q30	0	Q90 TOOL	
	1	Q30 TOOL	

Table 4. OPTION 2 CODE Data

DATA	ACMS	VOL	H/PHO	DVD	SAV	WOOFER	VGA	Q30
0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	1	0
3	0	0	0	0	0	0	1	1
4	0	0	0	0	0	1	0	0
5	0	0	0	0	0	1	0	1
6	0	0	0	0	0	1	1	0
7	0	0	0	0	0	1	1	1
8	0	0	0	0	1	0	0	0
9	0	0	0	0	1	0	0	1
10	0	0	0	0	1	0	1	0
11	0	0	0	0	1	0	1	1
12	0	0	0	0	1	1	0	0
13	0	0	0	0	1	1	0	1
14	0	0	0	0	1	1	1	0
15	0	0	0	0	1	1	1	1
16	0	0	0	1	0	0	0	0
17	0	0	0	1	0	0	0	1
18	0	0	0	1	0	0	1	0
19	0	0	0	1	0	0	1	1
20	0	0	0	1	0	1	0	0
21	0	0	0	1	0	1	0	1
22	0	0	0	1	0	1	1	0
23	0	0	0	1	0	1	1	1
24	0	0	0	1	1	0	0	0
25	0	0	0	1	1	0	0	1
26	0	0	0	1	1	0	1	0
27	0	0	0	1	1	0	1	1
28	0	0	0	1	1	1	0	0
29	0	0	0	1	1	1	0	1
30	0	0	0	1	1	1	1	0
31	0	0	0	1	1	1	1	1
32	0	0	1	0	0	0	0	0
33	0	0	1	0	0	0	0	1
34	0	0	1	0	0	0	1	0
35	0	0	1	0	0	0	1	1
36	0	0	1	0	0	1	0	0
37	0	0	1	0	0	1	0	1
38	0	0	1	0	0	1	1	0
39	0	0	1	0	0	1	1	1
40	0	0	1	0	1	0	0	0
41	0	0	1	0	1	0	0	1
42	0	0	1	0	1	0	1	0
43	0	0	1	0	1	0	1	1
44	0	0	1	0	1	1	0	0

DATA	ACMS	VOL	H/PHO	DVD	SAV	WOOFER	VGA	Q30
45	0	0	1	0	1	1	0	1
46	0	0	1	0	1	1	1	0
47	0	0	1	0	1	1	1	1
48	0	0	1	1	0	0	0	0
49	0	0	1	1	0	0	0	1
50	0	0	1	1	0	0	1	0
51	0	0	1	1	0	0	1	1
52	0	0	1	1	0	1	0	0
53	0	0	1	1	0	1	0	1
54	0	0	1	1	0	1	1	0
55	0	0	1	1	0	1	1	1
56	0	0	1	1	1	0	0	0
57	0	0	1	1	1	0	0	1
58	0	0	1	1	1	0	1	0
59	0	0	1	1	1	0	1	1
60	0	0	1	1	1	1	0	0
61	0	0	1	1	1	1	0	1
62	0	0	1	1	1	1	1	0
63	0	0	1	1	1	1	1	1
64	0	1	0	0	0	0	0	0
65	0	1	0	0	0	0	0	1
66	0	1	0	0	0	0	1	0
67	0	1	0	0	0	0	1	1
68	0	1	0	0	0	1	0	0
69	0	1	0	0	0	1	0	1
70	0	1	0	0	0	1	1	0
71	0	1	0	0	0	1	1	1
72	0	1	0	0	1	0	0	0
73	0	1	0	0	1	0	0	1
74	0	1	0	0	1	0	1	0
75	0	1	0	0	1	0	1	1
76	0	1	0	0	1	1	0	0
77	0	1	0	0	1	1	0	1
78	0	1	0	0	1	1	1	0
79	0	1	0	0	1	1	1	1
80	0	1	0	1	0	0	0	0
81	0	1	0	1	0	0	0	1
82	0	1	0	1	0	0	1	0
83	0	1	0	1	0	0	1	1
84	0	1	0	1	0	1	0	0
85	0	1	0	1	0	1	0	1
86	0	1	0	1	0	1	1	0
87	0	1	0	1	0	1	1	1
88	0	1	0	1	1	0	0	0
89	0	1	0	1	1	0	0	1
90	0	1	0	1	1	0	1	0

DATA	ACMS	VOL	H/PHO	DVD	SAV	WOOFER	VGA	Q30
91	0	1	0	1	1	0	1	1
92	0	1	0	1	1	1	0	0
93	0	1	0	1	1	1	0	1
94	0	1	0	1	1	1	1	0
95	0	1	1	0	0	1	1	1
96	0	1	1	0	0	0	0	0
97	0	1	1	0	0	0	0	1
98	0	1	1	0	0	0	1	0
99	0	1	1	0	0	0	1	1
100	0	1	1	0	0	1	0	0
101	0	1	1	0	0	1	0	1
102	0	1	1	0	0	1	1	0
103	0	1	1	0	1	1	1	1
104	0	1	1	0	1	0	0	0
105	0	1	1	0	1	0	0	1
106	0	1	1	0	1	0	1	0
107	0	1	1	0	1	0	1	1
108	0	1	1	0	1	1	0	0
109	0	1	1	0	1	1	0	1
110	0	1	1	0	1	1	1	0
111	0	1	1	0	0	1	1	1
112	0	1	1	1	0	0	0	0
113	0	1	1	1	0	0	0	1
114	0	1	1	1	0	0	1	0
115	0	1	1	1	0	0	1	1
116	0	1	1	1	0	1	0	0
117	0	1	1	1	0	1	0	1
118	0	1	1	1	0	1	1	0
119	0	1	1	1	1	1	1	1
120	0	1	1	1	1	0	0	0
121	0	1	1	1	1	0	0	1
122	0	1	1	1	1	0	1	0
123	0	1	1	1	1	0	1	1
124	0	1	1	1	1	1	0	0
125	0	1	1	1	1	1	0	1
126	0	1	1	1	1	1	1	0
127	0	1	1	1	0	1	1	1
128	1	0	0	0	0	0	0	0
129	1	0	0	0	0	0	0	1
130	1	0	0	0	0	0	1	0
131	1	0	0	0	0	0	1	1
132	1	0	0	0	0	1	0	0
133	1	0	0	0	0	1	0	1
134	1	0	0	0	0	1	1	0
135	1	0	0	0	1	1	1	1
136	1	0	0	0	1	0	0	0

DATA	ACMS	VOL	H/PHO	DVD	SAV	WOOFER	VGA	Q30
137	1	0	0	0	1	0	0	1
138	1	0	0	0	1	0	1	0
139	1	0	0	0	1	0	1	1
140	1	0	0	0	1	1	0	0
141	1	0	0	0	1	1	0	1
142	1	0	0	0	1	1	1	0
143	1	0	0	0	1	1	1	1
144	1	0	0	1	0	0	0	0
145	1	0	0	1	0	0	0	1
146	1	0	0	1	0	0	1	0
147	1	0	0	1	0	0	1	1
148	1	0	0	1	0	1	0	0
149	1	0	0	1	0	1	0	1
150	1	0	0	1	0	1	1	0
151	1	0	0	1	0	1	1	1
152	1	0	0	1	1	0	0	0
153	1	0	0	1	1	0	0	1
154	1	0	0	1	1	0	1	0
155	1	0	0	1	1	0	1	1
156	1	0	0	1	1	1	0	0
157	1	0	0	1	1	1	0	1
158	1	0	0	1	1	1	1	0
159	1	0	0	1	1	1	1	1
160	1	0	1	0	0	0	0	0
161	1	0	1	0	0	0	0	1
162	1	0	1	0	0	0	1	0
163	1	0	1	0	0	0	1	1
164	1	0	1	0	0	1	0	0
165	1	0	1	0	0	1	0	1
166	1	0	1	0	0	1	1	0
167	1	0	1	0	0	1	1	1
168	1	0	1	0	1	0	0	0
169	1	0	1	0	1	0	0	1
170	1	0	1	0	1	0	1	0
171	1	0	1	0	1	0	1	1
172	1	0	1	0	1	1	0	0
173	1	0	1	0	1	1	0	1
174	1	0	1	0	1	1	1	0
175	1	0	1	0	1	1	1	1
176	1	0	1	1	0	0	0	0
177	1	0	1	1	0	0	0	1
178	1	0	1	1	0	0	1	0
179	1	0	1	1	0	0	1	1
180	1	0	1	1	0	1	0	0
181	1	0	1	1	0	1	0	1
182	1	0	1	1	0	1	1	0

DATA	ACMS	VOL	H/PHO	DVD	SAV	WOOFER	VGA	Q30
183	1	0	1	1	0	1	1	1
184	1	0	1	1	1	0	0	0
185	1	0	1	1	1	0	0	1
186	1	0	1	1	1	0	1	0
187	1	0	1	1	1	0	1	1
188	1	0	1	1	1	1	0	0
189	1	0	1	1	1	1	0	1
190	1	0	1	1	1	1	1	0
191	1	0	1	1	1	1	1	1
192	1	1	0	0	0	0	0	0
193	1	1	0	0	0	0	0	1
194	1	1	0	0	0	0	1	0
195	1	1	0	0	0	0	1	1
196	1	1	0	0	0	1	0	0
197	1	1	0	0	0	1	0	1
198	1	1	0	0	0	1	1	0
199	1	1	0	0	0	1	1	1
200	1	1	0	0	1	0	0	0
201	1	1	0	0	1	0	0	1
202	1	1	0	0	1	0	1	0
203	1	1	0	0	1	0	1	1
204	1	1	0	0	1	1	0	0
205	1	1	0	0	1	1	0	1
206	1	1	0	0	1	1	1	0
207	1	1	0	0	1	1	1	1
208	1	1	0	1	0	0	0	0
209	1	1	0	1	0	0	0	1
210	1	1	0	1	0	0	1	0
211	1	1	0	1	0	0	1	1
212	1	1	0	1	0	1	0	0
213	1	1	0	1	0	1	0	1
214	1	1	0	1	0	1	1	0
215	1	1	0	1	1	1	1	1
216	1	1	0	1	1	0	0	0
217	1	1	0	1	1	0	0	1
218	1	1	0	1	1	0	1	0
219	1	1	0	1	1	0	1	1
220	1	1	0	1	1	1	0	0
221	1	1	0	1	1	1	0	1
222	1	1	0	1	1	1	1	0
223	1	1	1	0	0	1	1	1
224	1	1	1	0	0	0	0	0
225	1	1	1	0	0	0	0	1
226	1	1	1	0	0	0	1	0
227	1	1	1	0	0	0	1	1
228	1	1	1	0	0	1	0	0

DATA	ACMS	VOL	H/PHO	DVD	SAV	WOOFER	VGA	Q30
229	1	1	1	0	0	1	0	1
230	1	1	1	0	0	1	1	0
231	1	1	1	0	0	1	1	1
232	1	1	1	0	1	0	0	0
233	1	1	1	0	1	0	0	1
234	1	1	1	0	1	0	1	0
235	1	1	1	0	1	0	1	1
236	1	1	1	0	1	1	0	0
237	1	1	1	0	1	1	0	1
238	1	1	1	0	1	1	1	0
239	1	1	1	0	1	1	1	1
240	1	1	1	1	0	0	0	0
241	1	1	1	1	0	0	0	1
242	1	1	1	1	0	0	1	0
243	1	1	1	1	0	0	1	1
244	1	1	1	1	0	1	0	0
245	1	1	1	1	0	1	0	1
246	1	1	1	1	0	1	1	0
247	1	1	1	1	0	1	1	1
248	1	1	1	1	1	0	0	0
249	1	1	1	1	1	0	0	1
250	1	1	1	1	1	0	1	0
251	1	1	1	1	1	0	1	1
252	1	1	1	1	1	1	0	0
253	1	1	1	1	1	1	0	1
254	1	1	1	1	1	1	1	0
255	1	1	1	1	1	1	1	1

Table 5. OPTION 3 Function

Option	Code	Function	Remark
WIDE	0	4:3 TV	
	1	16:9 TV	
EU	0	NON EU	
	1	EU	
CH+AU	0	Without D/K CHINA or BB	
	1	With D/K CHINA or BB	

Table 6. OPTION 3 CODE Data

DATA	WIDE	EU	CH+AU
0	0	0	0
32	0	0	1
64	0	1	0
96	0	1	1
128	1	0	0
160	1	0	1

DATA	WIDE	EU	CH+AU
192	1	1	0
224	1	1	1

Table 7. OPTION 4 Funtion

OPTION	CODE	Language	Funciton
LANG	0	E Only	English
	1	English+EU 4	English/Grman/French/Italian/Spanish
	2	English+Other EU	English/Dutch/Swedish/Norwegian/Danish/Swiss/Portuguess/Romanian/Polish/Hungarian/Czech/Russian
	3	English+FARSI	English/Farsi
	4	English+Arab+URDU	English/French/Arab+Urdu
	5	English+India	English/Swedish/Norwegian/Danish/Finish
	6	English+East-South Asia	English/Indonesian/Malaysian/Vietnamese
	7	English+THAI	English/Thai
	8	English+China	English/China
T LAN	0	West Europe	English/French/Swedish/Czech/German/Spanish/Itallian
	1	East Europe	Polish/Fench/Swedish/Czech/German/Slovenian/Italian/Romanian
	2	Turkey	English/French/Swedish/Turkish/German/Spanish/Itallian
	3	Czecho/Hungary	English/Hungarian/Serbian/Czech/German/Polish/Spanish/Itallian/Romanian
	4	Cyrillic 1	
	5	Cyrillic 2	
	6	Cyrillic 3	
	7	Turkey/Greek 1	
	8	Turkey/Greek 2	
	9	Turkey/Greek 3	
	10	Arab/France	
	11	Arab/English	
	12	Arab/Hebrew 1	
	13	Arab/Hebrew 2	
	14	Farsi/English	
	15	Farsi/France	
	16	Farsi all	

Table 8. OPTION 4 Code Data

DATA	LANG	TLAN	DATA	LANG	TLAN	DATA	LANG	TLAN	DATA	LANG	TLAN	DATA	LANG	TLAN
000	0	0	203	2	3	406	4	6	609	6	9	812	8	12
001	0	1	204	2	4	407	4	7	610	6	10	813	8	13
002	0	2	205	2	5	408	4	8	611	6	11	814	8	14
003	0	3	206	2	6	409	4	9	612	6	12	815	8	15
004	0	4	207	2	7	410	4	10	613	6	13	816	8	16
005	0	5	208	2	8	411	4	11	614	6	14			
006	0	6	209	2	9	412	4	12	615	6	15			
007	0	7	210	2	10	413	4	13	616	6	16			
008	0	8	211	2	11	414	4	14	700	7	0			
009	0	9	212	2	12	415	4	15	701	7	1			
010	0	10	213	2	13	416	4	16	702	7	2			
011	0	11	214	2	14	500	5	0	703	7	3			
012	0	12	215	2	15	501	5	1	704	7	4			
013	0	13	216	2	16	502	5	2	705	7	5			
014	0	14	300	3	0	503	5	3	706	7	6			
015	0	15	301	3	1	504	5	4	707	7	7			
016	0	16	302	3	2	505	5	5	708	7	8			
100	1	0	303	3	3	506	5	6	709	7	9			
101	1	1	304	3	4	507	5	7	710	7	10			
102	1	2	305	3	5	508	5	8	711	7	11			
103	1	3	306	3	6	509	5	9	712	7	12			
104	1	4	307	3	7	510	5	10	713	7	13			
105	1	5	308	3	8	511	5	11	714	7	14			
106	1	6	309	3	9	512	5	12	715	7	15			
107	1	7	310	3	10	513	5	13	716	7	16			
108	1	8	311	3	11	514	5	14	800	8	0			
109	1	9	312	3	12	515	5	15	801	8	1			
110	1	10	313	3	13	516	5	16	802	8	2			
111	1	11	314	3	14	600	6	0	803	8	3			
112	1	12	315	3	15	601	6	1	804	8	4			
113	1	13	316	3	16	602	6	2	805	8	5			
114	1	14	400	4	0	603	6	3	806	8	6			
115	1	15	401	4	1	604	6	4	807	8	7			
116	1	16	402	4	2	605	6	5	808	8	8			
200	2	0	403	4	3	606	6	6	809	8	9			
201	2	1	404	4	4	607	6	7	810	8	10			
202	2	2	405	4	5	608	6	8	811	8	11			