ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note:

"CBA" is abbreviation for "Circuit Board Assembly."

NOTE:

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

Test Equipment Required

1. DC Voltmeter
2. Pattern Generator
3. Color Analyzer

How to Set up the Service mode:

1. Turn the power on. (Use main power on the TV unit.)
2. Press [STANDBY], [2], [7], [1], and [MUTE] buttons on the remote control unit in that order within 5 seconds.

- To cancel the service mode, press [STANDBY] button on the remote control.

1. Initial Setting

General

Enter the Service mode.

Set the each initial data as shown on table 1 below.

Table 1: Initial Data

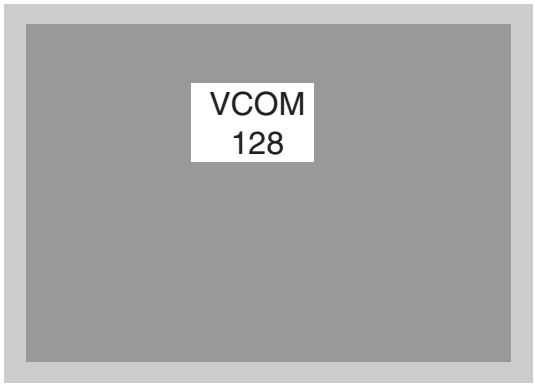
ITEM	BUTTON (on the remote control)	DATA VALUE
BRT(PAL)	MENU → 1	130
CNT(PAL)		140
CLR-R(PAL)		70
CLR-B(PAL)		70
SHR(PAL)		143
S-BRT(PAL)	MENU → 2	133
S-CNT(PAL)		140
S-CLR-R(PAL)		70
S-CLR-B(PAL)		70
S-SHR(PAL)		143
C-BRT(PAL)	MENU → 3	128
C-CNT(PAL)		128
C-CLR-R(PAL)		120
C-CLR-B(PAL)		120
C-SHR(PAL)		143
BRT(SECAM)	MENU → 4	130
CNT(SECAM)		140
CLR-R(SECAM)		70
CLR-B(SECAM)		70
SHR(SECAM)		143
S-BRT(SECAM)	MENU → 5	133
S-CNT(SECAM)		140
S-CLR-R(SECAM)		70
S-CLR-B(SECAM)		70
S-SHR(SECAM)		143
C-BRT(SECAM)	MENU → 6	128
C-CNT(SECAM)		128
C-CLR-R(SECAM)		120
C-CLR-B(SECAM)		120
C-SHR(SECAM)		143
BRT(NTSC)	MENU → 7	128
CNT(NTSC)		138
CLR-R(NTSC)		77
CLR-B(NTSC)		77
TNT(NTSC)		120
SHR(NTSC)		143
S-BRT(NTSC)	MENU → 8	128
S-CNT(NTSC)		138
S-CLR-R(NTSC)		74
S-CLR-B(NTSC)		74
S-TNT(NTSC)		120
S-SHR(NTSC)		143

ITEM	BUTTON (on the remote control)	DATA VALUE
C-BRT(NTSC)	MENU → 9	128
C-CNT(NTSC)		128
C-CLR-R(NTSC)		150
C-CLR-B(NTSC)		150
C-TNT(NTSC)		120
C-SHR(NTSC)		143
BRIGHT	0	0
NORMAL	0	65
DARK	0	98
COR(C/D/S-1)	VOL. ▼ → 1	128
COG(C/D/S-1)	VOL. ▼ → 2	128
COB(C/D/S-1)	VOL. ▼ → 3	128
DR(C/D/S-1)	VOL. ▼ → 4	180
DG(C/D/S-1)	VOL. ▼ → 5	180
DB(C/D/S-1)	VOL. ▼ → 6	180
SBR(C/D/S-1)	VOL. ▼ → 7	0
SBB(C/D/S-1)	VOL. ▼ → 9	0
C-COR(C/D/S-2)	VOL. ▼ → 1	128
C-COG(C/D/S-2)	VOL. ▼ → 2	128
C-COB(C/D/S-2)	VOL. ▼ → 3	128
C-DR(C/D/S-2)	VOL. ▼ → 4	140
C-DG(C/D/S-2)	VOL. ▼ → 5	140
C-DB(C/D/S-2)	VOL. ▼ → 6	140
C-SBR(C/D/S-2)	VOL. ▼ → 7	0
C-SBB(C/D/S-2)	VOL. ▼ → 9	0
7F	VOL. ▼	FF
LAST POWER		OFF
SYSTEM		*1
NCM		ON
ASPECT		OFF
RUSSIAN		OFF

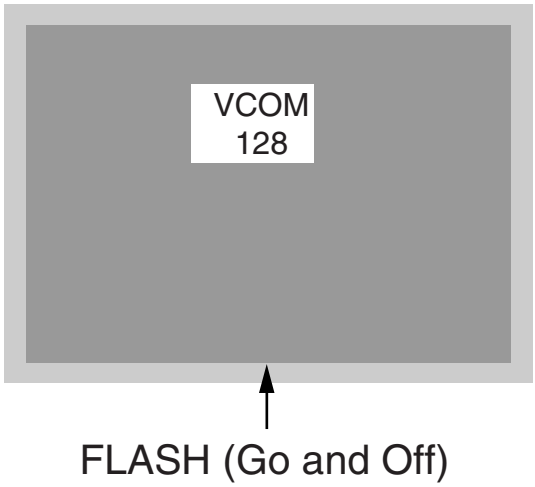
*1 PAL-BG (LDD-A2006), PAL-I (LDD-B2006), SECAM-L (LDD-C2006), PAL-BG/DK (LDD-D2006)

2. Flicker Adjustment

1. Enter the Service mode. (See page 6-1.)
2. Press [2] button on the remote control unit. The following screen appears.



3. If Flicker Adjustment is not fit, the screen becomes the following.



4. Press [CH. ▲ / ▼] buttons on the remote control unit so that flash stops.

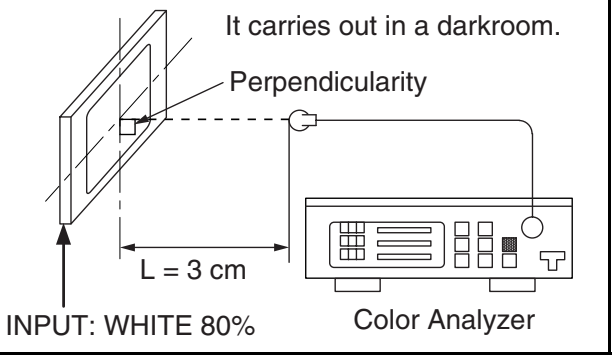
The following adjustment normally are not attempted in the field. Only when replacing the LCD Panel then adjust as a preparation.

3. White Balance Adjustment

Purpose: To mix red, green and blue beams correctly for pure white.

Symptom of Misadjustment: White becomes bluish or reddish.

Test Point	Adj. Point	Mode	Input
Screen	VOL. ▼ buttons	**[RF/AV2(CVBS)]** C/D/S-1 **[AV1(RGB)]** C/D/S-2	White Purity (APL 80%) or (APL 40%)
M. EQ.		Spec.	
Pattern Generator, Color analyzer		x: 285 to 295, y: 295 to 305	
Figure			



1. Operate the unit for more than 20 minutes.
2. Input the White Purity.
3. Set the color analyzer to the CHROMA mode and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above.
   Note: The optical receptor must be set perpendicularly to the LCD Panel surface.
4. **[RF/AV2(CVBS)]**
   Enter the Service mode. Press [VOL ▼] button on the remote control unit and select “C/D/S-1” mode.
   [AV1(RGB)]
   Enter the Service mode. Press [VOL ▼] button on the remote control unit and select “C/D/S-2” mode.
5. **[RF/AV2(CVBS)]----(APL 80%)**
   Press [6] button to select “DB(C/D/S-1)” for Blue adjustment. Press [4] button to select “DR(C/D/S-1)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “DB (C/D/S-1)” or “DR (C/D/S-1)”. Refer to “1. Initial Setting.”
   [RF/AV2(CVBS)]----(APL 40%)
   Press [3] button to select “COB(C/D/S-1)” for Blue adjustment. Press [1] button to select “COR(C/D/S-1)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “COB (C/D/S-1)” or “COR (C/D/S-1)”. Refer to “1. Initial Setting.”
6. **[AV1(RGB)]----(APL 80%)**
   Press [6] button to select “C-DB(C/D/S-2)” for Blue adjustment. Press [4] button to select “C-DR(C/D/S-2)” for Red adjustment.When “x” value and “y” value are not within specification, adjust “C-DB(C/D/S-2)” or “C-DR(C/D/S-2)”. Refer to “1. Initial Setting.”
   [AV1(RGB)]----(APL 40%)
   Press [3] button to select “C-COB(C/D/S-2)” for Blue adjustment. Press [1] button to select “C-COR(C/D/S-2)” for Red adjustment.When “x” value and “y” value are not within specification, adjust “C-COB(C/D/S-2)” or “C-COR(C/D/S-2)”. Refer to “1. Initial Setting.”
7. Turn the power off and on again. (Main power button on the TV unit.)

HOW TO INITIALIZE THE LCD TV/DVD

To put the program back at the factory-default, initialize the LCD TV/DVD as the following procedure.

< DVD Section >

1. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

"*******" differs depending on the models.

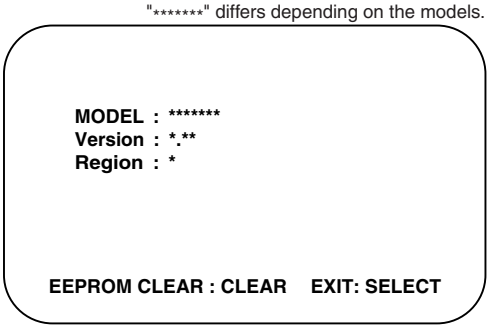


Fig. g

2. Press [CLEAR] button on the remote control unit.
   Fig. h appears on the screen.

"*******" differs depending on the models.

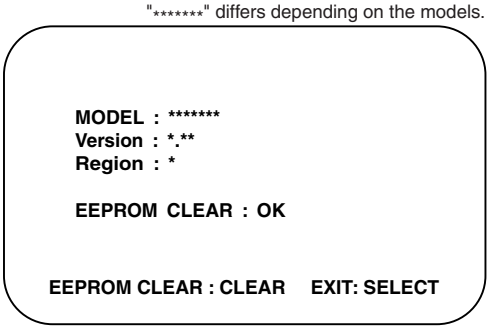


Fig. h

   When “OK” appears on the screen, the factory default will be set.
3. To exit this mode, press [CH. ▲ / ▼] or [SELECT] button to go to TV mode, or press [STANDBY] button to turn the power off.

< LCD TV Section >

1. Turn the power on. (Use main power on the TV unit.)
2. To enter the service mode, press [STANDBY], [2], [7], [1], and [MUTE] buttons on the remote control unit in that order within 5 seconds.
   - To cancel the service mode, press [STANDBY] button on the remote control.
3. To initialize the LCD television, press “DISPLAY” button on the remote control unit.
4. Confirm "FF" indication on the upper right of the screen.

FIRMWARE RENEWAL MODE

1. Turn the power on and press [EJECT] button on the remote control unit to put the LCD TV/DVD into DVD mode. Then remove the disc.
2. To put the LCD TV/DVD into F/W version up mode, press [9], [8], [7], [6], and [MODE] buttons on the remote control unit in that order.
   Fig. a appears on the screen.

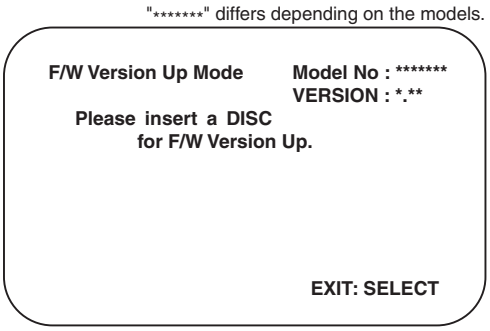


Fig. a Version Up Mode Screen

3. Insert the disc for version up into the disc slot.
4. The LCD TV/DVD enters the F/W version up mode automatically. Fig. c appears on the screen. If you enter the F/W for different models, “Disc Error” will appear on the screen, then the disc will be ejected automatically.

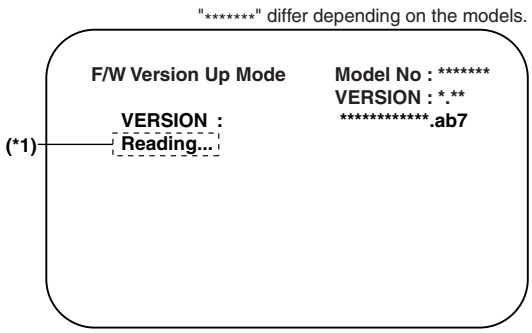


Fig. c Programming Mode Screen

The appearance shown in (*1) of Fig. c is described as follows:

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

5. After programming is finished, the disc will be ejected automatically. Fig. e appears on the screen and the checksum will be shown in (*2).

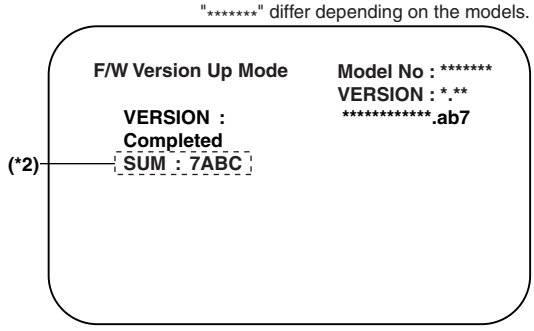


Fig. e Completed Program Mode Screen

At this time, no button is available.

6. Remove the disc.
7. Press [CH. ▲ / ▼] button on the unit to go to TV mode, or press [STANDBY] button on the unit to turn the power off.
8. Press [EJECT] button on the remote control unit to put the LCD TV/DVD into DVD mode again.
9. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

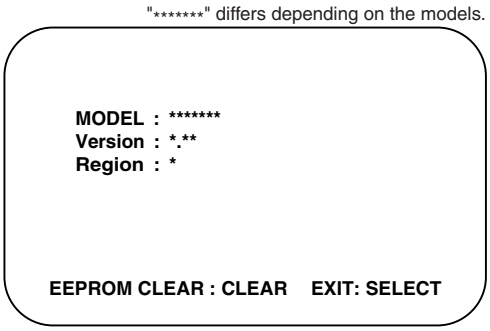


Fig. g

10. Press [CLEAR] button on the remote control unit.
    Fig. h appears on the screen.

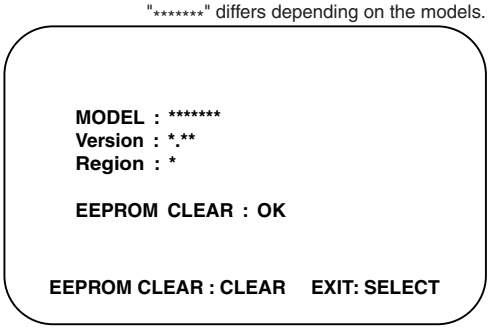


Fig. h

When “OK” appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.

11. To exit this mode, press [CH. ▲ / ▼] or [SELECT] button to go to TV mode, or press [STANDBY] button to turn the power off.