# 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.

How to make Service remote control unit:

1. Prepare normal remote control unit (Part No. NE240UD). Remove 3 screws from the back lid (Fig. 1-1).

Screws

Remote control unit (bottom)   **Fig. 1-1**
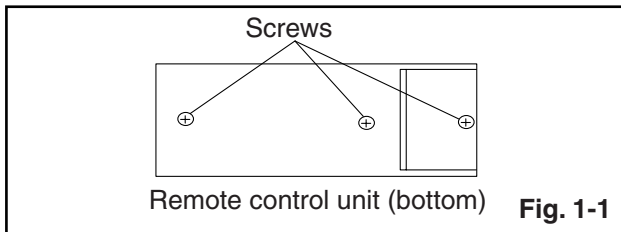
2. Cut off pin 10 of the remote control microprocessor and short circuit pins 10 and 17 of the microprocessor with a jumper wire.

How to set up the service mode:

Service mode:

1. Use the service remote control unit.
2. Turn the power on. (Use main power on the TV unit.)
3. Press [DISC MENU] button on the service remote control unit. Version of micro computer will be displayed on the LCD or display. (Ex: A95FP-0.23)

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 [Use the attached remote control unit. (not service remote control unit)]	Data Value
BRT		120
CNT		140
CLR-R		64
CLR-B	[MENU] → [1]	64
TNT		128
V-TNT		128
SHR		35
S-BRT		120
S-CNT		140
S-CLR-R		64
S-CLR-B	[MENU] → [2]	64
S-TNT		128
S-SHR		35
C-BRT		124
C-CNT		144
C-CLR-R		69
C-CLR-B	[MENU] → [3]	69
C-TNT		128
C-SHR		35

Item	Button [Use the attached remote control unit. (not service remote control unit)]	Data Value
D2-BRT	[MENU] → [5]	135
D2-CNT		145
D2-CLR-R		68
D2-CLR-B		68
D2-TNT		128
D2-SHR		35
D3-BRT	[MENU] → [6]	120
D3-CNT		144
D3-CLR-R		69
D3-CLR-B		69
D3-TNT		128
D3-SHR		28
DR(C/D1)	[VOL ▼] → [4]	176
C-DR(C/D2)		176
DB(C/D1)	[VOL ▼] → [6]	147
C-DB(C/D2)		147

2. Flicker Adjustment

1. Enter the Service mode.
2. Press [2] button on the remote control unit.
    The following screen appears.
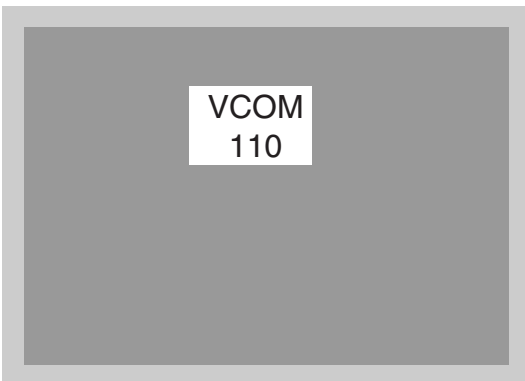
3. If Flicker Adjustment is not fit, the screen becomes the following.
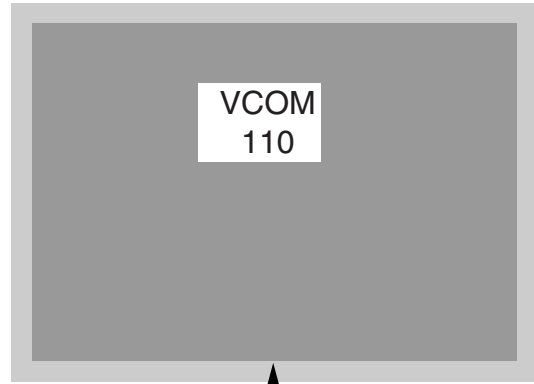
FLASH (Go and Off)

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/VIDEO1]** C/D1 **[VIDEO2]** C/D2	White Purity (APL 80%)

M. EQ.	Spec.
Pattern Generator, Color analyzer	x: 0.256 to 0.316, y: 0.264 to 0.324

Figure

It carries out in a darkroom.

Perpendicularity

L = 3 cm

INPUT: WHITE 80%   Color Analyzer
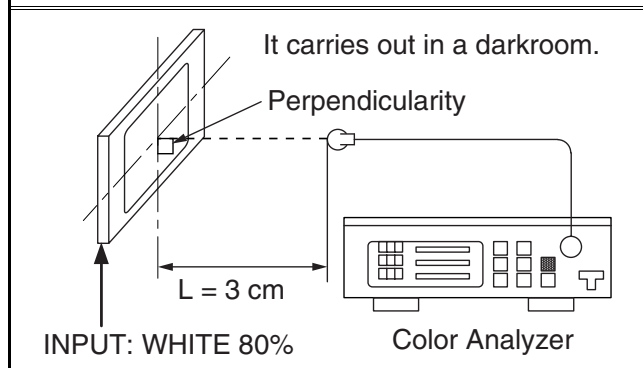
Note: Use the remote control unit.

1. Operate the unit for more than 20 minutes.
2. Input the White Purity (APL 80%).
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/VIDEO1]**
   Enter the Service mode. Press "VOL ▼" button on the remote control unit and select "C/D1-" mode.
   [VIDEO2]
   Enter the Service mode. Press "VOL ▼" button on the remote control unit and select "C/D2-" mode.

5. **[RF/VIDEO1]**
   When "x" value and "y" value are not within specification, adjust "DB (C/D1)" or "DR (C/D1)". Refer to "1. Initial Setting."
   Note: "DB(C/D1)" or "DR(C/D1)" must be adjusted within ±0.01.
   [VIDEO2]
   When "x" value and "y" value are not within specification, adjust "DB(C/D2)" or "DR(C/D2)". Refer to "1. Initial Setting."
   Note: "C-DB(C/D2)" or "C-DR(C/D2)" must be adjusted within ±0.01.

6. 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.

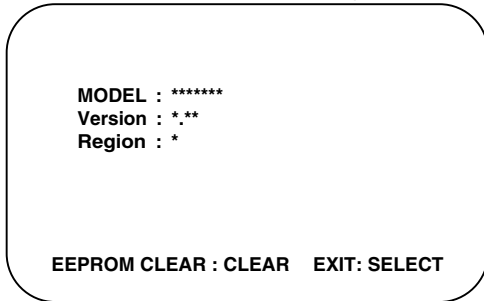"*******" differ depending on the models.

```
MODEL : *******
Version : *.**
Region : *




EEPROM CLEAR : CLEAR    EXIT: SELECT
```

Fig. g

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

"*******" differ depending on the models.

```
MODEL : *******
Version : *.**
Region : *

EEPROM  CLEAR : OK


EEPROM CLEAR : CLEAR    EXIT: SELECT
```

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 [POWER] 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 [DISC MENU] button on the service remote control unit.

   - To cancel the service mode, press [POWER] 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.
5. Unplug the AC cord.

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 [SEARCH MODE] buttons on the remote control unit in that order.
   Fig. a appears on the screen.

"*******" differ depending on the models.

```
┌─────────────────────────────────────┐
│                                       │
│  F/W Version Up Mode    Model No : *******  │
│                         VERSION : *.**      │
│    Please insert a DISC               │
│       for F/W Version Up.             │
│                                       │
│                                       │
│                                       │
│                         EXIT: SELECT  │
└─────────────────────────────────────┘
```

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.

"*******" differ depending on the models.

```
┌─────────────────────────────────────┐
│                                       │
│  F/W Version Up Mode    Model No : *******  │
│                         VERSION : *.**      │
│        VERSION :        ************.ab6    │
│ (*1)───Reading...                     │
│                                       │
│                                       │
│                                       │
└─────────────────────────────────────┘
```

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).

"*******" differ depending on the models.

```
┌─────────────────────────────────────┐
│                                       │
│  F/W Version Up Mode    Model No : *******  │
│                         VERSION : *.**      │
│    VERSION :            ************.ab6    │
│    Completed                          │
│ (*2)──SUM : 7ABC                      │
│                                       │
│                                       │
└─────────────────────────────────────┘
```

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 [POWER] 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.

"*******" differ depending on the models.

```
┌─────────────────────────────────────┐
│                                       │
│                                       │
│    MODEL : *******                    │
│    Version : *.**                     │
│    Region : *                         │
│                                       │
│                                       │
│  EEPROM CLEAR : CLEAR    EXIT: SELECT │
└─────────────────────────────────────┘
```

Fig. g

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

"*******" differ depending on the models.

```
┌─────────────────────────────────────┐
│                                       │
│                                       │
│    MODEL : *******                    │
│    Version : *.**                     │
│    Region : *                         │
│                                       │
│    EEPROM CLEAR : OK                  │
│                                       │
│  EEPROM CLEAR : CLEAR    EXIT: SELECT │
└─────────────────────────────────────┘
```
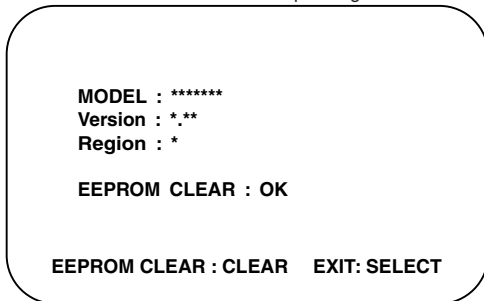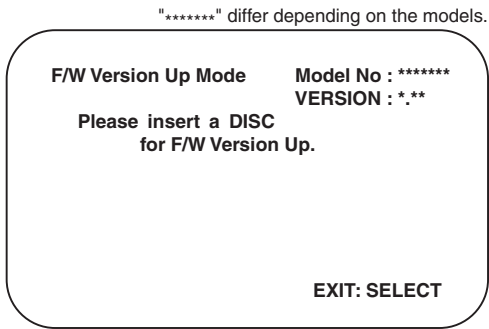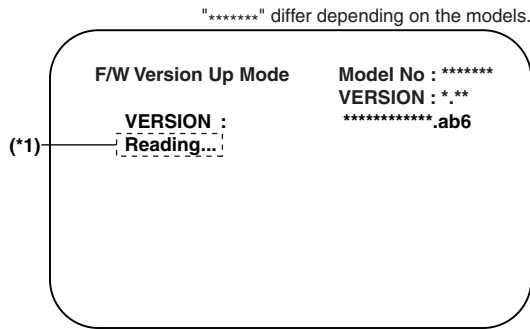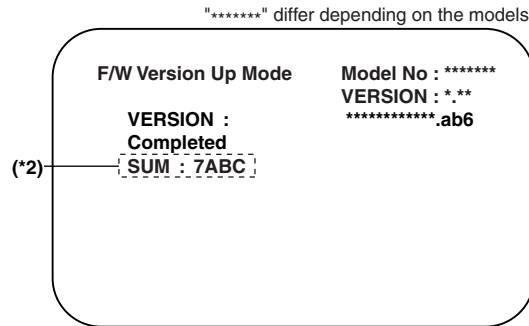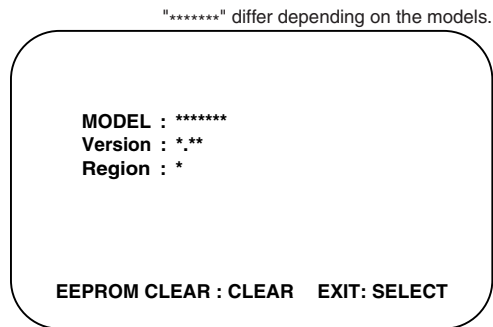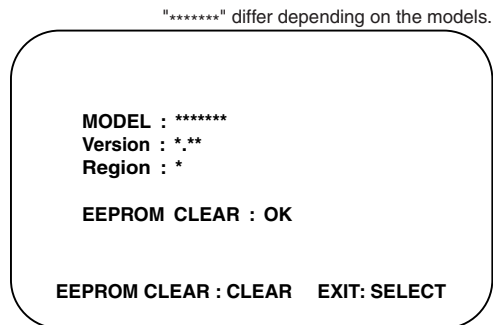
Fig. h

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 [POWER] button to turn the power off.