

How to make service remote control unit:

1. Prepare normal remote control unit. (Part No. N0121UD or N0134UD) Remove 3 Screws from the back lid. (Fig. 1-1)
2. Add J1 (Jumper Wire) to the remote control CBA. (Fig. 1-2)

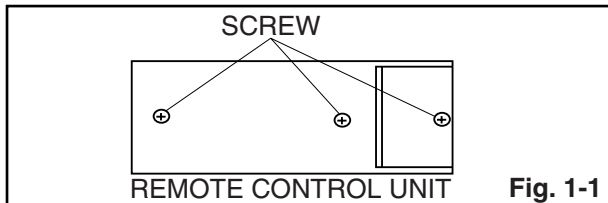


Fig. 1-1

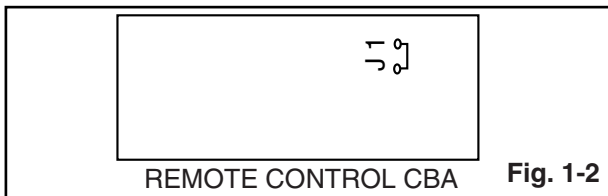


Fig. 1-2

How to set up the service mode: Service mode:

1. To turn the power on, press "POWER" button on the normal remote control unit or the unit.
2. Use the service remote control unit.
3. Press "SLEEP" button on the service remote control unit. Fig. 2 appears on the screen.

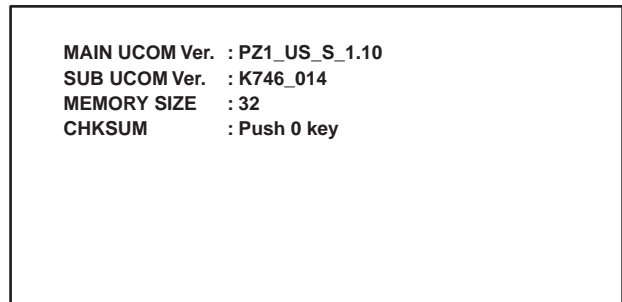


Fig. 2

4. Confirm the following
 - a. Version of main micro computer --- PZ1_US_S_1.10
 - b. Version of sub micro computer --- K746_014
 - c. Memory size --- 32
 - d. FLASH DATA Chek Sum (press "0" button on the service remote control unit) --- 5F1Dh

Initial setting:

1. To turn the power on, press "POWER" button on the normal remote control unit or the unit.
2. Enter the service mode.
3. To reset to factory setting, press "DISPLAY" button on the service remote control unit.
 - "INITIALIZE" (red) appears on the screen as shown in Fig. 3.

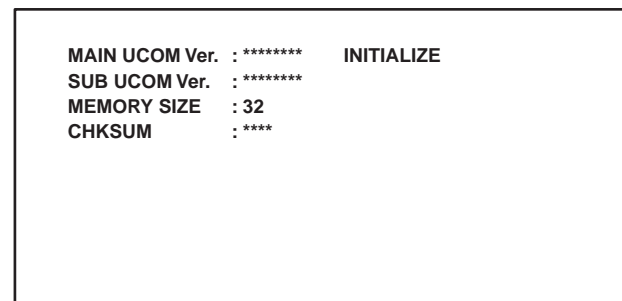


Fig. 3

- After few seconds (completion initialization), color of "INITIALIZE" will change green.

1. Auto Calibration (Black & White)

- Operate the unit more than 20 minutes.
- Input black raster signal from only Component AV Input (2) video/Y jack (green). Do not input any signal to Component AV Input (2) video/Pb or Pr jack.
- Enter the service mode.
- To enter the Auto Calibration (Black) adjustment mode, press "2" button on the service remote control unit. If no signal, "No signal" appears on the screen.
- To start auto adjustment, press "CH ▲" button on the service remote control unit.
- Input white raster signal (100% or 110%) from only Component AV Input (2) video/Y jack (green). Do not input any signal to Component AV Input (2) video/Pb or Pr jack.
- To enter the Auto Calibration (White) adjustment mode, press "3" button on the service remote control unit. If no signal, "No signal" appears on the screen.
- To start auto adjustment, press "CH ▲" button on the service remote control unit.
- Upon completion, wait for at least 5 seconds.
- Unplug AC cord and plug it in AC outlet again to reset then enter the service mode again.
- Confirm that both the "Black Calibration : Complete" and "White Calibration : Complete" are displayed on the screen as shown in Fig. 4. If "Yet" is displayed instead of "Complete", repeat above steps.

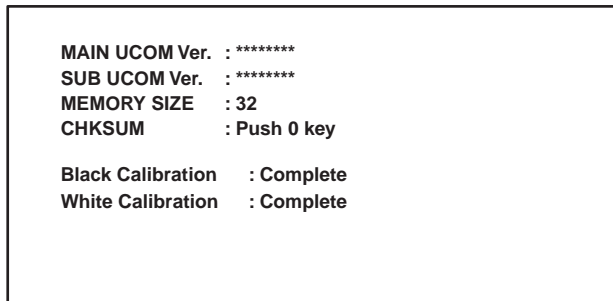
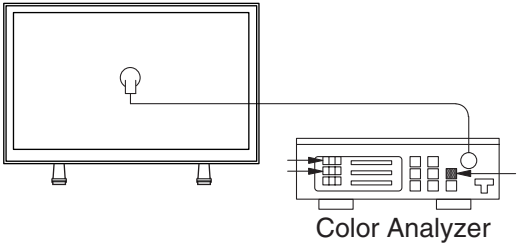


Fig. 4

2. 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	CH ▲ / ▼ buttons	Video 1 & Component 2	Gray scale pattern signal (5 scales)
M. EQ.			Spec.
Pattern Generator, Color analyzer			See below
Figure			
 <p style="text-align: center;">Color Analyzer</p> <p style="text-align: right;">Fig. 5</p>			

Notes:

- Use service remote control unit.
- This adjustment should be performed in both Component 2 mode and Video 1 mode. Adjustment in Component 2 mode should be performed after completion of ADC calibration adjustment.

- Operate the unit more than 20 minutes.
- Input the gray scale pattern signal (5 scales) from Component AV Input (2) video/Y jack.
- Set the color analyzer to the CHROMA mode and after zero point calibration, for high light adjustment, bring the optical receptor to the 2nd scale as shown below.

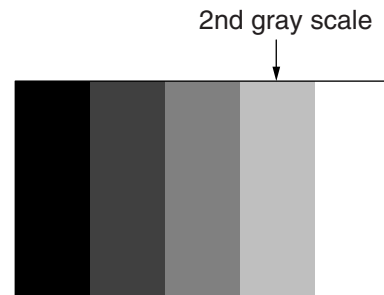


Fig. 6

- Enter the Service mode.

5. Enter the component adjustment mode, press "VOL ▼" button once on the service remote control unit.
6. Press "4" button on the service remote control unit for Red adjustment. Press "6" button on the service remote control unit for Blue adjustment.
7. In each color mode, press "CH ▲ / ▼" button to adjust the values of color.
8. Adjust Red and Blue color so that the temperature becomes 9200°K-5MPCD (x: 288 / y: 288) ±3%.
9. For low light adjustment, bring the optical receptor to the 4th scale as shown below.

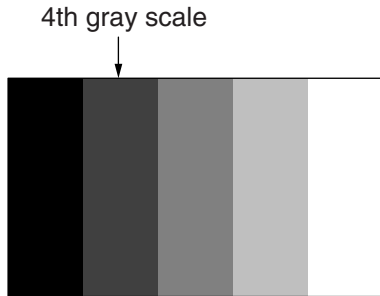


Fig. 7

10. Press "1" button on the service remote control unit for Red adjustment. Press "3" button on the service remote control unit for Blue adjustment.
11. In each color mode, press "CH ▲ / ▼" button to adjust the values of color.
12. Adjust Red and Blue color so that the temperature becomes 9200°K-5MPCD (x: 288 / y: 288) ±3%.
13. Check adjustment value in high light adjustment again. If adjustment value is not within specification, repeat steps 2-8.
14. To enter the adjustment mode in the Composite mode (Video 1 mode), press "VOL ▼" button once on the service remote control unit.
15. Input the gray scale pattern signal (5 scales) from Composite AV Input (1) video jack (Video 1).
16. Adjust in the same way above.

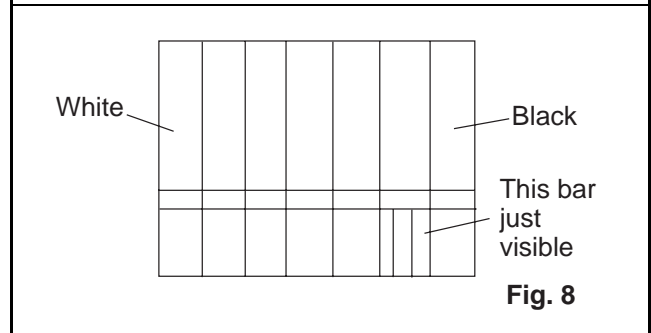
3. Sub-Brightness Adjustment

Purpose: To get proper brightness.

Symptom of Misadjustment: If Sub-Brightness is incorrect, proper brightness cannot be obtained by adjusting the Brightness Control.

Adj. Point	Mode	Input
CH ▲ / ▼ buttons	Video 1 & Component 2	IQW
M. EQ.	Spec.	
Pattern Generator	See below	

Figure



Notes:

- IQW Setup level --- 7.5 IRE
- Use service remote control unit.
- This adjustment should be performed in both Component 2 mode and Video 1 mode. Adjustment in Component 2 mode should be performed after completion of ADC calibration adjustment.

1. Enter the Service mode. Then input IQW signal from Component AV Input (2) video.
2. Press "VOL ▼" button on the service remote control unit.
3. Press "7" on the service remote control unit.
4. Press "CH ▲ / ▼" buttons so that the bar is just visible. (Refer to Fig. 8.)
5. Input IQW signal from Composite AV Input (1) video jack (Video 1).
6. To adjust in Composite mode (Video 1 mode), repeat steps 2 - 4.
7. Turn the power off and on again, using the main power button on the TV unit.