



## Display

Date: **November 16, 1998**Model: **BKM-20D, BKM-21D, BKM-22X**Serial No: **2,000,001–2,001,830**  
**2,000,001–2,005,309**  
**2,000,001–2,000,180**Subject: **INCORRECT LUMINANCE OR  
CHROMINANCE LEVELS****DESCRIPTION**

The adjustment values for luminance and chroma levels may be too high or low. If errors occur while performing Auto adjustment procedure (CONTROL PRESET ADJ Menu) then implement alignment procedure to adjust luminance and/or chroma levels.

**NOTE:** Error should only occur on 5% of units.

**ALIGNMENT PROCEDURE**

1. Determine if unit needs adjustment:
  - a. Configure CH05 for RGB. (Refer to maintenance manual "4.1 Preparations for BD Board Adjustment".)
  - b. Select CH05.
  - c. Read values of Y level, PB level, and PR level. (In BKM-20D/21D/22X.../ maintenance menu page 4/5.)
  - d. If values are not between 73 and 87 perform steps 2–5.
2. Analog RGB:
  - a. Input RGB color bars (EX. 100%).
  - b. Perform Auto Control Preset Adjustment. (Refer to operation manual.)
  - c. If Auto Control Preset Adjustment ends in error then perform:
    - 4.4 Analog Component, RGB Adjustment—4.2 RGB level adjustment. (Refer to maintenance manual for detailed instructions.)
    - Repeat Auto Control Preset Adjustment.
3. Analog Component:
 

**NOTE:** Configure CH4 for YUV; if input signal has Setup, configure for setup. (Refer to maintenance manual section 4-1.)

  - a. Select CH04.
  - b. Input component color bars (EX. 100%).
  - c. Perform Auto Control Preset Adjustment. (Refer to operation manual.)

d. If Auto Control Preset Adjustment ends in error then perform:

- 4.4 Analog Component, RGB Adjustment—4.1 Y/R-Y/B-Y level adjustment. (Refer to maintenance manual for detailed instructions.)

**NOTE:** If a 100% Betacam color bar input signal is used, adjustment specifications are: A=673mv ( $\pm 10$ mv), B=880mv ( $\pm 10$ mv), and C=880mv ( $\pm 10$ mv).

- Repeat Auto Control Preset Adjustment.

4. Analog NTSC:

**NOTE:** Configure CH1 for NTSC; if input signal has setup, configure for setup.

- a. Select CH01.
- b. Perform 4.2 Analog NTSC Mode Adjustment—2.4 NTSC A/D input level adjustment. (Refer to maintenance manual for detailed instructions.)
- c. Perform 4.2 Analog NTSC Mode Adjustment—2.7 NTSC output level adjustment. (Refer to maintenance manual for detailed instructions.)
- d. Input analog NTSC color bars (EX. 100%).
- e. Perform Auto Control Preset Adjustment. (Refer to operation manual.)

5. Analog PAL:

Configure CH 02 for PAL-S and CH03 for PAL-D.

- a. Perform 4.3 Analog PAL Mode Adj. adjustments:
  - PAL A/D input level adjustment. (Refer to maintenance manual section 3.5.)
  - Analog PAL-S output level adjustment. (Refer to maintenance manual section 3.7.)
  - Analog PAL-D output level adjustment. (Refer to maintenance manual section 3.16.)
  - Input analog PAL color bars (EX. 100%).
  - Perform Auto Control Preset Adjustment. (Refer to operation manual.)



6. When Luminance Level of 100% white input signal (as measured with color analyzer) is incorrect in Analog NTSC, PAL, or Component modes:
  - a. Select built-in white signal, "093" channel.
  - b. Measure luminance level using a color analyzer or BKM-14L ANALYZE Menu.
  - c. Input a 100% white signal of Analog NTSC, PAL, or Component.
  - d. Measure luminance.
  - e. Perform Y level adjustments in BKM-20D/21D/22X.../maintenance menu until luminance level measurement equals level in step b.
  - f. Input Analog NTSC, PAL or Component color bars (EX. 100%).
  - g. Perform Auto Control Preset Adjustment.

**NOTE:** Adjustment data is stored in "static RAM" (IC4 on BC board of monitor); adjustments must be done again if BKM board is replaced.