

Lumagen *Vision*TM Quick Reference Guide

The remote control setup sequence for common configurations is described below. For additional information, see the *Installation Commands* section of the *User Manual and Installer Guide*.

- Connect video cables and power. Turn all required components on.
- Set the output type. Use RGBHV (default) if display has an RGBHV input. Examples:
YP_RP_B trilevel: **MENU 1 1 OK** Component with embedded trilevel sync
YP_RP_B bilevel: **MENU 1 1 ▼ OK** Component with embedded bilevel sync
RGB H–V–: **MENU 1 2 OK** RGB with discrete H– and V– sync (default)
RGB S–: **MENU 1 3 OK** RGB with discrete composite– sync (default)
RGsB: **MENU 1 4 ▼ OK** RGB with embedded bilevel sync
- Set the output resolution. For a fixed pixel device use the maximum resolution it accepts, **not** its native resolution. This will improve the picture unless there is a major design flaw in the fixed pixel display. The commands are as follows:
480p: **MENU 2 1** 540p: **MENU 2 2** 600p: **MENU 2 3**
720p: **MENU 2 4** 768p: **MENU 2 5** 840p: **MENU 2 6**
1080p: **MENU 2 7** 1080i: **MENU 2 8**
Other: **MENU 3 value OK**, where *value* is the resolution (e.g. **9, 0, 0**)
- Set the vertical refresh rate (default = 59.94 Hz). For NTSC, use the default. For PAL using 50.00 Hz is optimal, but higher rates can be used to reduce flicker. Press “**MENU 4 value OK**” where “*value*” is the vertical refresh rate in hundredths. For example a vertical refresh rate of 59.94 is entered as **MENU 4 5 9 9 4 OK**.
- Set the output aspect ratio. Press “**MENU 6 value OK**” where “*value*” is the desired screen aspect ratio in hundredths (16:9 is **MENU 6 1 7 8**, 4:3 is **MENU 6 1 3 3**)
- For **MENU** commands press the **MENU** button, use arrow keys to highlight the next item in the list and press the **OK** button. An “→” denotes levels in the menu hierarchy.
- Play a DVD calibration disc and select it as the input source. Typically either AVIATM or Digital Video EssentialsTM calibration DVDs are used.
- Display one of the test images with “overscan” markers. On AVIA one such test pattern is the 200 TVL chart in the Advanced AVIA section. Select the appropriate input aspect ratio so the test pattern is full-screen (e.g. 16:9 for a 16:9 screen aspect ratio).
- Adjust output size and position to minimize the amount of overscan. In other words, try to get the entire active image on-screen. If the display has output size and position, use it rather than the Lumagen controls. Otherwise use the following Lumagen commands:
For sizing: **MENU → OUT → RES → SIZE → [◀, ▶, ▼, ▲], OK**
For positioning: **MENU → OUT → RES → POS → [◀, ▶, ▼, ▲], OK**
- Adjust the input size and position using the Lumagen controls. When the Lumagen input size controls are selected, the corner of the image being adjusted is moved toward the center of the screen to simplify accurate calibration. First adjust the top-left of the image so that all active pixels are on-screen. Then adjust the bottom-right.
For top-left: **MENU → IN → ADJ → SIZE → TOPL → [◀, ▶, ▼, ▲], OK**
For bottom-right: **MENU → IN → ADJ → SIZE → BTMR → [◀, ▶, ▼, ▲], OK**
- Recheck the output size and position and readjust as necessary.

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- Set the output black pedestal. This specifies if output blank and black are the same (0 IRE), or if blank is a lower level than black (7.5 IRE). Typically this should be set to 0 IRE for fixed-pixel displays, and 7.5 IRE for CRT based displays. The command is:
 - For 0 IRE: **MENU → OUT → LEVL → PDSTL → 0 IRE, OK**
 - For 7.5 IRE: **MENU → OUT → LEVL → PDSTL → 7.5 IRE, OK**
- Set the input black pedestal. This specifies if input blank and black are the same (0 IRE), or if black is a higher level than blank (7.5 IRE). Typically this should be set to 0 IRE for component inputs, and to 7.5 IRE for composite and SVideo, but this is not always the case. If uncertain, 0 IRE is the safest selection. The command is:
 - For 0 IRE: **MENU → IN → ADJ → PDSTL → 0 IRE, OK**
 - For 7.5 IRE: **MENU → IN → ADJ → PDSTL → 7.5 IRE, OK**
- Set the black level. Use the AVIA “PLUGE” which has vertical bars moving left and right for 2 and 4 IRE (black is 0 IRE) and at 96 and 98 IRE (white is 100 IRE). For calibrating black, look at the 2 and 4 IRE bars and adjust so the 4 IRE bar is visible and the 2 IRE bar is barely visible. Note for many displays the black level will not be constant between dark and light scenes, so some compromise may be needed. If the display has a black level control (also called “brightness”), use it for the DVD input, then use the Lumagen controls for differences in other inputs. The command is:
 - MENU → IN → COLR → BLCK → [▲, ▼], OK**
- Set the white level. Use the AVIA PLUGE pattern. For calibrating white, look at the 96 and 98 IRE bars and adjust so the 96 IRE bar is visible and the 98 IRE bar is barely visible against white. If the display has a contrast level control, use it for the DVD input, then use the Lumagen controls for differences in other inputs. The command is:
 - MENU → IN → COLR → CONT → [▲, ▼], OK**
- Set Color and Hue using the Lumagen controls. Use the Advanced AVIA color test pattern. Follow instructions on the AVIA disc for using the blue filter and the color bars for use with the blue filter.
 - For color: **MENU → IN → COLR → COLR → [◀, ▶, ▼, ▲], OK**
 - For bottom-right: **MENU → IN → COLR → HUE → [◀, ▶, ▼, ▲], OK**
- Set Y/C Delay (formerly called CPHASE). One pattern to use is the Y/C-Delay pattern in the Special Test section of Advanced AVIA. On the right half of the image there are red and yellow vertical bars. Adjust the yellow-red transitions to minimize any black.
 - MENU → IN → ADJ → YC-DLY → [◀, ▶], OK**
- The grayscale “color-of-gray” should be calibrated by a video technician. Have them contact Lumagen for the service codes to access the five-point color of gray calibration.
- Copy the DVD configuration to all configuration memories (**MENU → IN → COPY → OK**).
- Calibrate other inputs, if desired.
- Name the inputs, if desired (**MENU → IN → NAME → OK** and follow directions).
- Set power-on message, if desired (**MENU → MISC → POWR → MSG → [◀, ▶, ▼, ▲], OK**)
- Lock the configuration, if desired (**MENU → MISC → LOCK → LOCKED, OK**)
- *Save the configuration* (**MENU → SAVE → SAVE, OK**)