

Cine-tal Cinemage Readme

Title: Cinemage v4.1

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Special Notes

Version 4.0 was never publically released.

Version 4.1 contains version 4.0 plus changes for the Cinemage B Series.

There was a major addition in the calibration mechanism going from any previous version to 4.0. If you purchased the Auto Calibration option with your Cinemage, after updating please reprofile your display at a resolution of 64 or more points for best results.

v4.1 Known major bugs

1. 2048x1080 PsF modes sometimes show a problem wherein the 4 right-most pixels on alternate lines are shown as black. This will be fixed in an upcoming release.

Before installing this update please shutdown and restart your monitor. See the installation instructions later in this document.

4.1 Major Feature Additions. See the product manual for more information.

1. With the proper model of Cinemage a new *Gamut controlled calibration mode* with integrated cineSpace 3D LUT calibration is now available. This is quite useful for newer revisions of Cinemage that feature a wide gamut ("WG") panel. Customers without this feature may contact Cine-tal technical support for information about an upgrade.

This calibration works by dynamically reading your existing monitor's profile and using proprietary cineSpace algorithms to generate a high-precision (65-points per side, or 274625-point) 3D LUT to remap the color gamut from the native panel gamut to that selected, calibrating the panel as part of the process. This means that when changing profiles the calibration 3D LUTs need to be regenerated, a computationally intense process that adds 2-3 minutes to a panel recalibration process.

This feature requires that a hardware 3D LUT option be present inside your Cinemage monitor. This upgrade can be performed by Cine-tal, please contact support for more information. Note that at Cine-tal's option we may have provided you with a monitor capable of using this feature even though the 3D LUT option was not purchased. In this case Cinetal is providing you with the use of this feature gratis.

If you have purchased the 3D LUT option you are free to continue this feature in conjunction with the existing 3D LUT reader with the following changes.

- a. The 3D LUT output is **always** routed to the display.
- b. 3D LUTs selected or loaded by the user are concatenated to the calibration 3D LUT so that the creative LUT occurs **before** the calibration LUT.

This feature allows complete emulation of a selection of color spaces, including primary, gamma, and white point mapping. As before,

brightness, contrast, saturation, gamma, and RGB adjustments are available for manual adjustment. Note that some features (such as Dual-Link video input) are required for some features (such as XYZ input).

- a. Rec 709 (technically ITU-R Recommendation BT.709). By design this does not include the linear segment at the bottom of the gamma curve as most users find it objectionable. The linear segment is available with the alternate calibration methodology ("Open Gamut"). Contact support if you need clarification or help with this issue.
 - b. Rec 709 D93. This emulates Rec 709 phosphors (as above) with a D93 (Japanese) white point.
 - c. NTSC, (technically SMPTE RP 145-2004). This emulates SMPTE C phosphors with a D65 whitepoint 2.2 gamma. Note that in this case we adhered to the specification rather than emulating the 2.4 gamma found in most older CRTs. The gamma adjustment is available.
 - d. PAL, (technically EBU Tech. 3213 primaries with a 2.2 gamma.
 - e. NTSC D93. This emulates the SMPTE C phosphors at a D93 (Japanese) white point.
 - f. DCI. This emulates the Digital Cinema Initiatives' version 1.1, white point, minimal gamut (AKA DCI P3 gamut/primaries) with a 2.6 gamma. Note that this slightly exceeds the gamut of even the WG panel so some mapping will occur at the edges. Contact support if you need clarification or help with this issue.
 - g. XYZ. In this case the 3D LUT hardware is used to convert data that is XYZ internally into RGB for display. The DCI white point and gamut, are used for display.
2. *New Video Modes* feature. These simplified setups, available under the Operator and Route menus, combine several previously independent settings. The available Video Modes will be constrained by your monitor's features set. See the product manual for more details.
 3. New XYZ mode, this requires the gamut controlled calibration mode (see #1) to be set.
 4. 2K support for waveforms and vector scopes.
 5. XYZ support for waveforms and vector scopes. When, in XYZ mode, the waveform or vector scope is on screen they control the 3D LUT and turn off the display calibration. In this case an "XYZ for analysis" warning is shown on the heads up display.

The waveform/vector scope diagnostics available from the XYZ input data default to XYZ converted to RGB or YCbCr (the previously available modes). There is also a new "XYZ waveform mode" that shows the raw XYZ waveforms, unconverted to RGB.
 6. Support for markers and masks in 2K and Standard Definition modes.
 7. Support for Cinemage B Series Monitor. Support has been added for the next generation of Cinemage monitors, the Cinemage B230.

8. USB Mouse Menu Navigation. The capability to navigate the Cinemage menus using a standard USB mouse has been added.

When a mouse is connected the current menu button is outlined.

Lateral mouse movement changes the current menu button.

Pressing the left mouse button effectively presses the current button.

Pressing the right mouse button resets the menu to the home position in the top menu level.

When using a mouse that has a scroll wheel, the scroll wheel can be used to step either direction through an option list associated with the current menu button. Each click of the scroll wheel acts like a press of the menu button.

For menu buttons associated with the trackball, the mouse can be used in place of a trackball by left clicking on the far right button area. Mouse "setting stuff" (trackball) operation is modal. When the mouse is in "setting stuff" mode the far right button area will be inverted. Mouse movement or scroll wheel movement will change the value of the current menu item. An additional left click will exit "setting stuff" mode.

The mouse sensitivity can be controlled from a new Cinemage menu item.

- SETUP MENUS (4)
 - PRESET & PREFERENCES SETUP (4)
 - MANAGE PREFERENCES (2)
 - MORE (6)
 - MOUSE SENSITIVITY (3)

9. Changes to USB Control Panel operation.

The 6 Cinemage buttons on the USB Control Panel (top row of buttons) correspond to the 6 buttons on a Cinemage. In some configurations the Cinemage buttons on the USB Control Panel may be lighted to show the current menu button. If a mouse is attached to the Cinemage or to the USB Control Panel, the Cinemage buttons on the USB Control Panel will track the mouse movement. The current menu button will be lit. If a mouse is not present, the most recently pressed menu button will be outlined and the corresponding Cinemage button on the USB Control Panel will be lit.

The function buttons may perform different (usually related) operations depending on the length of time the button is pressed. Some of the function buttons have alternate functionality when pressed for longer than a second. When a function button is pressed for longer than a second the top row of buttons is lit and a dot is drawn on the bottom row of the LCD display for each second the button is pressed. Pressing and holding a function button for 1-3 seconds (Short Hold & Release) will show the current setting. Pressing and holding a function button for more than 3 seconds (Long Hold & Release) will change the current Cinemage menu to the related setup page.

Mark button. Pressing the Mark button toggles between turning off the marker and the most recent enabled marker setting. Short Hold & Release will show the current marker setting. Long Hold & Release will change the current Cinemage menu to the MARKER SETUP page.

Scan button. Pressing the Scan button toggles between the default resizer option and the most recently selected resizer setting. Short Hold & Release will show the current resizer setting. Long Hold & Release will change the current Cinemage menu to the RESIZER OPTION setup page.

Int button. The Int button steps through the available display source choices that aren't represented by a separate button (SDI1-4 and DVI). Short Hold & Release will show the current display source setting. Long Hold & Release will change the current Cinemage menu to the DISPLAY SOURCE setup page.

Installation Instructions:

1. Be sure you have all of the required files. The two files included with this release are:
 - a. Updater: update_full_v4.1.cup
 - b. This document: Readme_v4.1.pdf
2. Insert a USB data key (almost all USB memory or data keys will work) into your computer (Mac or PC).
3. Verify that the datakey is formatted for FAT (most are) or NTFS.
4. Create a folder named "cinetal" on the root of the USB datakey.
5. Move the file named update_full_v30.cup to the folder named "cinetal" on the datakey. Make sure that there are no other Cine-tal updates in that directory.
6. Remove the datakey from the PC or MAC and insert it into the front or side USB post on the Cinemage unit.
7. From the Cinemage main menu go find the UPDATE FROM USB option.
 - a. If the previous version is 1.0 or 1.1:

From the main menu select far left button CINEMAGE MODEL# then the far right button MACHINE INFORMATION then MORE then MORE.
 - a. If the previous version is 1.3 or later:
 - i. From the main menu select button SETUP then UNIT INFORMATION then MORE then MORE.
 - ii. You will now see the UPDATE FROM USB button.

iii. Press the UPDATE FROM USB button.

The Cinemage system will read from the USB and perform the update then shut down.

Remove the USB datakey. Power-up the Cinemage and the update will be in place.

Verify that the correct UPDATE shows under UNIT INFORMATION.

--- CRUCIAL NOTE ---

An incomplete update can result in a state that requires shipping the monitor to Cine-tal for repair.

If you aren't sure whether the monitor has completely shut down, wait at least 20 minutes before restarting. Alternately, there's a small internal green light visible through the top grate (on the left while facing the onitor). This light is only visible if the unit is on.

--- CRUCIAL NOTE #2 ---

We have occasional reports of updates failing; in this case when the monitor is restarted it will come up with a black screen; no video and no power-up test.

In this case rename the updater to "update.now" and place it in the root of the USB key. Then shut down your monitor, wait 30 seconds, and restart the monitor with the USB key already in place. This will reapply the update and shut down the monitor again. Since it's difficult to tell when the monitor actually shuts down in this case, wait at least 10 minutes before attempting to restart it again.

If this fails repeat the above with the file renamed to "emergency_update.now".

Remove the key before restarting, otherwise the monitor will keep reapplying the update.