

Christie IMB Dolby Color Calibration Instruction Sheet

This document provides procedures for calibrating the Dolby 3D color correction on the Christie Integrated Media Block (IMB). When installing the Christie IMB with Dolby 3D equipment you must complete a color calibration to ensure an optimal image.

This document assumes that the Christie IMB is installed and operating correctly. If you have not installed and configured the Christie IMB, see the Christie IMB User Manual.

Unless otherwise noted, all procedures are completed on the projector touch panel controller (TPC).

Prerequisites

- Dolby calibration package for the Christie IMB (available from Dolby laboratories)
- Dolby calibration lenses (available from Dolby laboratories)
- Dolby color correction license. If you have not previously installed the license on the Christie IMB, contact Christie and request a license.
- Colorimeter
- Laptop with the Microsoft Windows XP SP3 operating system (or later)
- USB flash drive

Upload the Dolby Color Correction License to the Projector

A Dolby color correction license is required to play content on the Christie IMB. After you obtain a license from Christie, use this procedure to upload it and enable Dolby 3D color correction.

1. Insert a USB flash drive into the USB port of the computer on which the Dolby Color Correction license is stored.
2. Browse to the location of the Dolby Color Correction license and download it to the USB flash drive.
3. Insert the USB flash drive with the Dolby Color Correction license into the USB port on the side of the projector touch panel controller (TPC).
4. On the TPC, tap **Menu > Christie IMB > System > Licenses**.
5. Tap **Add**.
6. Browse to the location of the license file and then tap **Open**.
7. Stop and then restart any content that is playing to apply the new license.

Load a Default Dolby Color Correction Configuration File

Loading the default Dolby color correction configuration file applies a unity adjustment to both eyes. This procedure overwrites all existing modified Dolby Color Correction configuration files.

1. Tap **Menu > Christie IMB > System**.
2. Tap **General > Config Files**.
3. Tap **Load Default Config** in the **Dolby Color Correction** area.
4. Tap **Yes**.

Ingest the Dolby Test Patterns

The Dolby test patterns are included with the Dolby calibration package for the Christie IMB.

1. Insert a USB flash drive into the USB port of your laptop.
1. Insert the CD provided with the Dolby calibration package into the CD-ROM drive of your laptop.
2. Download the Dolby test patterns to the USB flash drive.
3. Remove the USB flash drive and insert it into the ingest port on the Christie IMB.
4. Tap **Menu > Christie IMB > Content**.
5. Tap **Ingestible Content**.
6. Select content to ingest in the **Ingestible Content** list.
7. Tap **Ingest**.

Install the Dolby Color Correction File Generator

The Dolby Color Correction File Generator is included with the Dolby calibration package for the Christie IMB.

The Dolby Color Correction File Generator requires .NET Framework 4.0 or later. Install .NET Framework before completing this procedure. You can download .NET Framework here: <http://www.microsoft.com/downloads/>.

1. Insert the CD provided with the Dolby calibration package into the CD-ROM drive of your laptop.
2. Double-click **GenDolbyFiles v1.0.0.0.exe**.
3. Click **Next**.
4. Accept the default installation location or click **Browse** and select an alternate location.
5. Click **Install**.
6. Click **Close**.

Calibrate the Color of the Left and Right Images

Your Dolby 3D equipment must be correctly installed and operating before you can calibrate the color of the left and right lenses.

1. On your laptop, browse to the installation location of the Dolby Color Correction File Generator and then double-click **GenDolbyFiles**.
2. Click **Start**.
3. Load and display the Dolby 3D Color Correction (FS Red 3D) test pattern:
 - a. On the projector touch panel controller (TPC), tap **Menu > Christie IMB > Control**.
 - b. Tap the **Unlock** icon.
 - c. Tap **Load Content**.
 - d. Tap the **Content** tab.
 - e. Tap the red Dolby test pattern.
 - f. Tap **Accept**.
 - g. Use the playback controls to start the red Dolby 3D Color Correction (FS Red 3D) test pattern.
4. Hold the left Dolby calibration lens in front of the colorimeter lens and measure the red chromaticity with the colorimeter.
5. On your laptop, enter the measurement values in the red **X** and **Y** fields.
6. Repeat steps 3, 4, and 5 for the blue, green, and white point chromaticity measurements. Load the test pattern that matches the color you are measuring.
7. Click **Next**.
8. Load and display the Dolby 3D Color Correction (FS Red 3D) test pattern:
 - a. On the projector touch panel controller (TPC), tap **Menu > Christie IMB > Control**.
 - b. Tap the **Unlock** icon.
 - c. Tap **Load Content**.
 - d. Tap the **Content** tab.
 - e. Tap the red Dolby test pattern.
 - f. Tap **Accept**.
 - g. Use the playback controls to start the Dolby 3D Color Correction (FS Red 3D) test pattern.
9. Hold the right Dolby calibration lens in front of the colorimeter lens and measure the red chromaticity with the colorimeter.
10. On your laptop, enter the measurement values in the red **X** and **Y** fields.
11. Repeat steps 8, 9, and 10 for the blue, green, and peak white point chromaticity measurements. Load the test pattern that matches the color you are measuring.
12. Click **Next**.
13. Save the chromaticity measurements:
 - a. Insert a USB flash drive into the USB port of your laptop.
 - b. Click **Save to file**.
 - c. Browse to the location of the USB flash drive.
 - d. Enter a file name in the **File name** field.
 - e. Click **Save**.

14. Upload the chromaticity measurement file to the projector:
 - a. Remove the USB flash drive with the chromaticity measurements from your laptop and insert it into the port on the side of the projector touch panel controller (TPC).
 - b. Tap **Menu > Christie IMB > System**.
 - c. Tap **General > Config Files**.
 - d. Tap **Load Config File** in the **Dolby Color Correction** area.
 - e. Select a drive and browse to the location of the configuration file.
 - f. Select the configuration file.
 - g. Tap **Accept**.
 - h. Stop and then restart any content that is playing to apply the color calibration.
15. Complete a secondary white point measurement. Do not close the Dolby Color Correction File Generator.

Secondary White Point Measurement

1. Load and display the Dolby 3D Color Correction (FS Peak White 3D) test pattern:
 - a. On the projector touch panel controller (TPC), tap **Menu > Christie IMB > Control**.
 - b. Tap the **Unlock** icon.
 - c. Tap **Load Content**.
 - d. Tap the **Content** tab.
 - e. Tap the peak white Dolby test pattern.
 - f. Tap **Accept**.
 - g. Use the playback controls to start the Dolby 3D Color Correction (FS Peak White 3D) test pattern.
2. Hold the left Dolby calibration lens in front of the colorimeter lens and measure the white chromaticity with the colorimeter.
3. On your laptop, enter the measurement values in the Corrected Left White Point **X** and **Y** fields.
4. Click **Next** in the **GenDolbyFiles** dialog.
5. Hold the right Dolby calibration lens in front of the colorimeter lens and measure the white chromaticity with the colorimeter.
6. On your laptop, enter the measurement values in the Corrected Right White Point **X** and **Y** fields.
7. Click **Next** in the **GenDolbyFiles** dialog.
8. Save the chromaticity measurements:
 - a. Insert a USB flash drive into the USB port of your laptop.
 - b. Click **Save to file**.
 - c. Browse to a location of the USB flash drive.
 - d. Enter a file name in the **File name** field.
 - e. Click **Save**.
9. Upload the chromaticity measurement file to the projector:
 - a. Remove the USB flash drive with the chromaticity measurements from your laptop and insert it into the port on the side of the projector touch panel controller (TPC).

- b. Tap **Menu > Christie IMB > System**.
 - c. Tap **General > Config Files**.
 - d. Tap **Load Config File** in the **Dolby Color Correction** area.
 - e. Select a drive and browse to the location of the configuration file.
 - f. Select the configuration file.
 - g. Tap **Accept**.
 - h. Stop and then restart any content that is playing to apply the color calibration.
10. Adjust left and right eye brightness. Do not close the Dolby Color Correction File Generator.

Adjust Left and Right Eye Brightness

1. Load and display the Dolby 3D Color Correction (FS Peak White 3D) test pattern:
 - a. On the projector touch panel controller (TPC), tap **Menu > Christie IMB > Control**.
 - b. Tap the **Unlock** icon.
 - c. Tap **Load Content**.
 - d. Tap the **Content** tab.
 - e. Tap the peak white Dolby test pattern.
 - f. Tap **Accept**.
 - g. Use the playback controls to start the Dolby 3D Color Correction (FS Peak White 3D) test pattern.
2. Hold the left Dolby calibration lens in front of the colorimeter lens and measure the left eye luminance with the colorimeter.
3. On your laptop, enter the measurement values in the **Left** field in the **Adjustment Luminance (left/right balance)** area.
4. Hold the left Dolby calibration lens in front of the colorimeter lens and measure the left eye luminance with the colorimeter.
5. On your laptop, enter the measurement values in the **Right** field in the **Adjustment Luminance (left/right balance)** area.
6. Click **Apply adjustment**.
7. Save the luminance measurements:
 - a. Insert a USB flash drive into the USB port of your laptop.
 - b. Click **Save to file**.
 - c. Browse to a location where you want to save the chromaticity measurements.
 - d. Enter a file name in the **File name** field.
 - e. Click **Save**.
8. Upload the brightness correction file to the projector:
 - a. Remove the USB flash drive with the chromaticity measurements from your laptop and insert it into the port on the side of the projector touch panel controller (TPC).
 - b. Tap **Menu > Christie IMB > System**.
 - c. Tap **General > Config Files**.
 - d. Tap **Load Config File** in the **Dolby Color Correction** area.
 - e. Select a drive and browse to the location of the configuration file.

- f. Select the configuration file.
 - g. Tap **Accept**.
 - h. Stop and then restart any content that is playing to apply the color calibration.
9. Click **File > Exit** in the GenDolbyFiles dialog to close the Dolby Color Correction File Generator.