

Christie® LCD flat panels are high-performance displays designed to deliver on quality, reliability and long-term service. To help maximize your displays' performance and lifespan, we have provided a number of operational guidelines.

## General usage tips for optimal performance

1. Keep the ambient temperature around the panel within the recommended operational range.
2. Turn off the panels every day, as prescribed in the user manual.

*Commercial grade panels can operate for extended periods, but even panels designed to support 24/7 usage will benefit from at least four hours of downtime every day. Consumer grade panels typically should not be operated for more than eight hours per day.*

3. If appropriate, turn down the brightness of the panel.

*The default brightness setting of the panels may be higher than required, depending upon the application. Reducing the brightness of the panels will extend their useful life, reduce heat and minimize power consumption.*

4. Avoid static content for extended periods of time.

*LCD technology will exhibit image retention if static content is displayed over extended periods of time. This is an inherent characteristic of LCD technology, common across all manufacturers.*

5. Avoid high contrast content

*High contrast patterns can lead to image retention by creating a difference in voltage between electrodes in the LCD, which accumulate over time. Avoid high contrast patterns, video or combinations of text and background colors which differ significantly in luminance.*

6. Consult and follow the guidance provided in the product user manual

*Always read the user manual prior to handling, installing and operating LCD flat panels.*

*User manuals contain important information that will help to ensure a safe*

*and satisfactory installation. Always operate the panels within the specifications outlined in the user manual.*



## Recommended operating conditions

All panels have a recommended operational temperature range. Monitor the panel temperature to ensure the panel is operating within this range, especially when installed in an enclosure, or flush to a wall. High operating temperatures can accelerate the ageing process and increase the risk of image retention.

## Tips to avoid static content

The following tips may help to avoid static content:

- Change colors periodically (every 30 minutes).
- Scroll text or images in both horizontal and vertical directions continuously or periodically (every 30 minutes).
- Show moving videos periodically, for example, a 60 second advertisement or screen saver every 30 minutes.
- Avoid sharp borders and outlines around zones of content.
- Enable any functions built into the panel to help avoid prolonged periods of static content,

such as the Image Retention Frame Motion (IRFM) function that is available in some Christie panels.

## Expected performance with 24/7 usage

Some LCD flat panels are designed for 24/7 usage, featuring commercial grade LCD modules, power supplies and advanced cooling design. Even so, panels operating 24/7, or greater than 7,000 hours per year, will degrade faster than panels with less demanding runtimes. Visible signs of ageing, such as image retention and brightness non-uniformity, are considered normal and not defective under such conditions.

Most commercial panels are designed to support longer runtimes than consumer panels, even up to 24 hours per day in some cases. However, extended runtimes decrease the lifespan of the display and increase the risk of image retention – the suggestions in this document will help to address the risks of extended run times.

## Contact Christie

Contact us today to find out how your organization can benefit from Christie solutions.

