

LIMITED WARRANTY

Panamorph, Inc. warrants this product to be free of defects in original workmanship and material for a period of eighteen (18) months from the date of manufacture listed on or inside its shipping container. During this period, a defective unit may be repaired or replaced, at the discretion of Panamorph, Inc., by returning it in its original packaging with a copy of your receipt. This warranty does not cover damage resultant from lack of prudent care, accident or misuse (including the use of motor systems with lenses or other products in ways not intended), or any cosmetic damage not reported within 15 days of purchase. Damages are limited to the cost of the product. A service charge may be applied to any returned product requiring cosmetic attention, or to the repair of any damage not covered under this warranty.

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DC1 Lens System

Summary

The DC1 is a high performance, customized, sealed anamorphic lens designed specifically for ceiling mounted projectors in conjunction with a Panamorph attachment system. It is designed to be easy to install and uses your projector's built-in aspect ratio settings to convert your standard 16:9 home theater projector into the ultimate true 2.40:1 immersive theater environments.

FOR OPTIMUM PERFORMANCE

Optimal throw distance from screen to projector: 12 - 21 feet (3.5 to 6.5 meters).

Ratio of throw distance to screen width: 1.6 minimum.

Designed projector mounting configuration: ceiling mounted (i.e. projector feet "up") and horizontally centered (approximately) on the center of the screen.

Optimum vertical position of the projector: +/- 20% of screen height from the top of the screen.

Design tip: Minor variations from optimum guidance will typically not cause noticeable effects on image quality, although a small ratio of throw distance to screen width will likely result in the image being cut off at the edges (overall, a larger ratio is recommended).

Installation

Please see the instruction sheet included with the attachment bracket for directions specific to your lens/projector combination. The lens must be installed before proceeding to the next steps.



TUNING IN LENS TILT AND SHIFT

This is the core step of the setup so please be patient!

- Turn the projector on with the DC1 Lens out of the projector beam. Set the projector's horizontal lens shift to neutral (if a feature of your projector) and then adjust the ceiling mount so that the 16:9 image is in the exact center of, and square to, the screen with a similar amount of image zoomed out slightly over the top and bottom screen borders. If the projector lens is not in the exact horizontal center of the screen you may need to use a little horizontal lens shift for this purpose.
- Bring the DC1 Lens into the beam path. Loosen the Lens Adjustment Screws (A) and slide the DC1 lens up or down adjusting the vertical position and tilt of the Lens so that the projector beam is passing through the center of the Lens aperture. This will typically result in the DC1 Lens being positioned below the center of the projector lens and tilted slightly downward.
- With the DC1 Lens in place the image should now fill the entire 2.40:1 screen. Any residual pincushion distortion (an inward curvature) should be equal at the top and bottom of the image. Tilting the lens up or down on its axis will even out this curvature. The sides of the image should be straight and square.
- Make sure the Lens Adjustment Screws (A) are roughly even in their vertical slot position or the image will show an irregular geometry from right to left.
- Once the image is adjusted to your satisfaction tighten all screws then lock the lens in place by tightening the small silver set screw (B) with the provided hex wrench. For optimum multiple aspect ratio performance, adjust the projector's zoom so that a 1.85:1 aspect ratio movie (Panamorph "out") is just masked by the top and bottom of the screen border. This way 1.85:1, 16:9 and 2.35-2.4:1 aspect ratio movies should all be presented to fill the screen at a constant height.

CLEANING

In most applications lenses do not need very much cleaning – a bit of dust will not impact image clarity. However, in today's high performance home cinemas with very dark rooms a small build-up of dust or other foreign matter on your projector lens or your Panamorph lens can produce a measurable reduction in contrast. The most effective cleaning approach is to simply blow off any dust. If there is any residue or build-up then it is recommended that you clean the optics with professional lens cleaning supplies such as from a camera store while the lens is in front of the lit beam of the projector. This will allow you to quickly see both the results of cleaning and also if you are causing any damage.