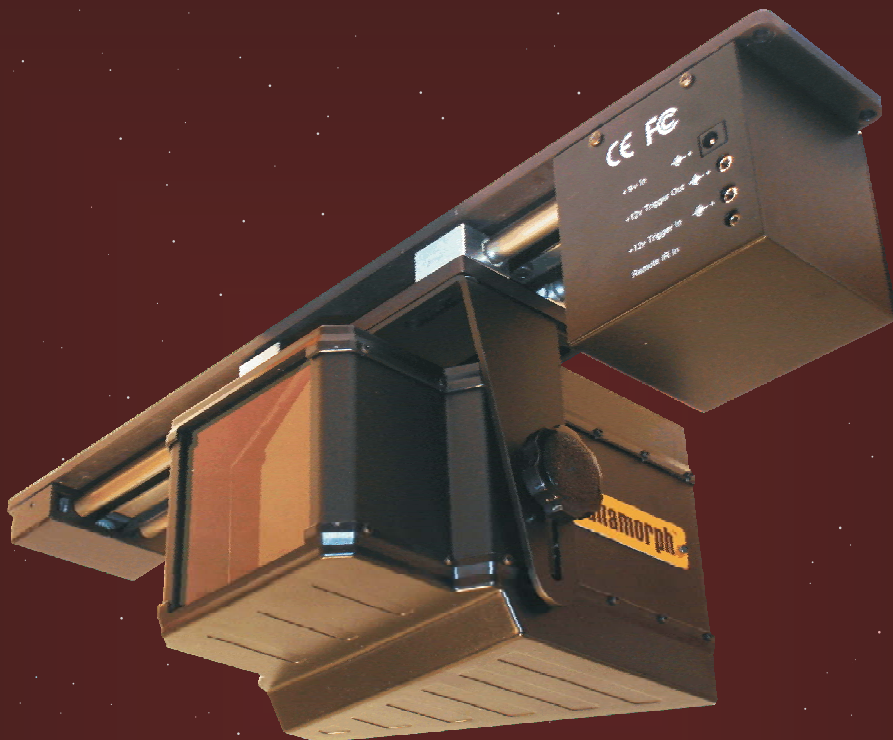




Eliminate those  
black bars  
and experience  
True Widescreen™



Upgrade your 16:9 projection  
system to a full, 2.35:1 anamorphic  
home cinema and show major  
motion pictures at their very best.  
Higher brightness.  
Higher resolution.  
**No black bars.**



**Panamorph™**

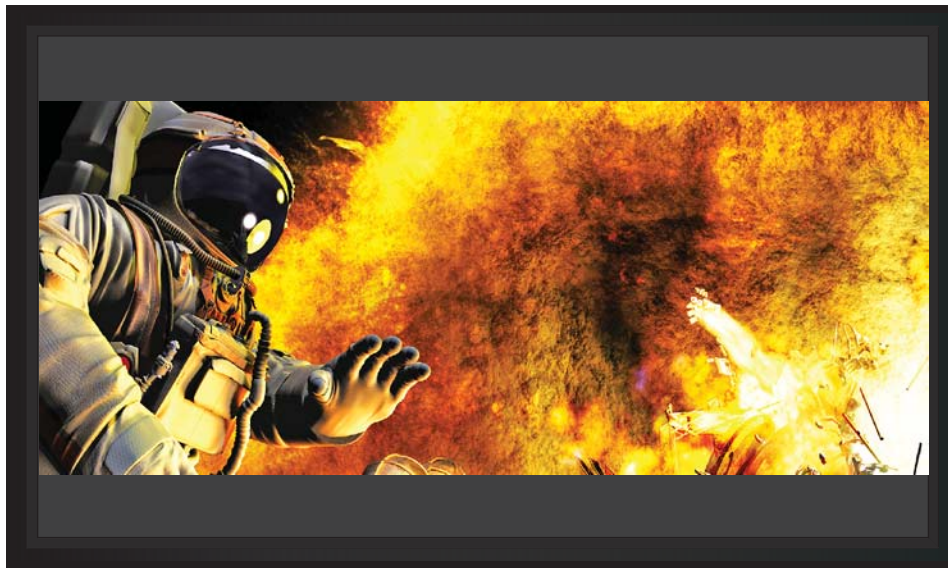
**Model UH380**

Professional-Grade Anamorphic Lens  
System and Accessories

10 ■ 300 ■ 2001: A Space Odyssey ■ 2010 ■ 3 Days Of The Condor ■ 8mm ■ Absolute Power ■ The Abyss ■  
 An Affair To Remember ■ The Age Of Innocence ■ Air Force One ■ Alien (all) ■ Amadeus ■ American Beauty ■  
 American Graffiti ■ Anna Karenina ■ Any Given Sunday ■ Apocalypse Now ■ Apollo 13 ■ Armageddon ■  
 Assault on Precinct 13 ■ Atlantis ■ Austin Powers (all) ■ Backdraft ■ Basic Instinct ■ Bedroom Window ■  
 Beverly Hills Cop (all) ■ Black Hawk Down ■ Black Rain ■ Blade ■ Blade Runner ■ Blazing Saddles ■ Blow ■  
 Blue Velvet ■ Born Free ■ Born On The Fourth Of July ■ Bourne Identity (all) ■ Braveheart ■ The Bridge On The  
 River Kwai ■ A Bridge Too Far ■ A Bug's Life ■ Butch Cassidy And The Sundance Kid ■ Carrie ■ Cars ■ Casino  
 ■ Casino Royale ■ Cider House Rules ■ Cleopatra ■ Cliffhanger ■ Close Encounters Of The Third Kind ■ Con  
 Air ■ Contact ■ Cool Hand Luke ■ Crimson Tide ■ Crocodile Dundee (all) ■ Crouching Tiger, Hidden Dragon ■  
 Da Vinci Code ■ Dances With Wolves ■ Dante's Peak ■ Dark City ■ Deep Impact ■ Deer Hunter ■ Deliverance ■  
 The Departed ■ Die Hard (all) ■ Doctor Zhivago ■ Dolores Claiborne ■ Donnie Brasco ■ Dune ■ Earthquake ■  
 Enemy Of The State ■ Enter The Dragon ■ Erin Brockovich ■ Falling Down ■ Far And Away ■ The Fast And The  
 Furious ■ A Few Good Men ■  
 Element ■ Fight Club ■ Finding  
 Forbidden Planet ■ Force 10 From  
 Connection ■ Fugitive ■ Funny Girl  
 Get Shorty ■ Ghostbusters (all) ■  
 The Graduate ■ Grease ■ The  
 Navarone ■ Halloween (all) ■ Harry  
 The West Was Won ■ The Hunt For Red October ■ I, Robot ■ In The Line Of Fire ■ The Incredibles ■  
 Independence Day ■ Indian Summer ■ The Insider ■ Jaws ■ Jesus Christ Superstar ■ Jewel Of The Nile ■ JFK  
 ■ King Kong ■ Kingdom of Heaven ■ Kundun ■ L. A. Confidential ■ Lara Croft (all) ■ The Last Emperor ■ The  
 Last Of The Mohicans ■ The Last Samurai ■ Lawrence of Arabia ■ Legend ■ Lethal Weapon (all) ■ The Lion In  
 Winter ■ The Lord Of The Rings (all) ■ Mad Max (most) ■ The Magnificent Seven ■ The Matrix (all) ■ Maverick ■  
 The Mexican ■ A Midsummer Night's Dream ■ Million Dollar Baby ■ Minority Report ■ Mission Impossible (all) ■  
 Mister Roberts ■ Moulin Rouge ■ Mr. Holland's Opus ■ Mrs. Doubtfire ■ The Mummy (both) ■ The Music Man ■  
 National Treasure ■ Notting Hill ■ O Brother, Where Art Thou? ■ Ocean's 11, 12, 13 ■ October Sky ■ The Omega  
 Man ■ The Omen (all) ■ Paint Your Wagon ■ Pale Rider ■ Papillon ■ The Passion Of The Christ ■ Patch Adams  
 ■ The Patriot ■ Patriot Games ■ Patton ■ Pearl Harbor ■ The Pelican Brief ■ The Perfect Storm ■ Pirates of the  
 Carribean (all) ■ Pitch Black ■ Planet Of The Apes (all) ■ Poltergeist ■ Pulp Fiction ■ Pushing Tin ■ Rambo (all)  
 ■ Real Genius ■ Remember The Titans ■ Reservoir Dogs ■ The Road To Perdition ■ Rob Roy ■ The Robe (first  
 2.35:1 movie, 1953) ■ The Rock ■ The Rocketeer ■ Romancing The Stone ■ Rounders ■ Rush Hour (all) ■ The  
 Sand Pebbles ■ Scarface ■ Scream (all) ■ Serpico ■ Seven ■ Seven Years In Tibet ■ Shakespeare In Love ■  
 Silverado ■ Sommersby ■ The Sons Of Katie Elder ■ Spartacus ■ Speed (all) ■ Spider-Man (all) ■ Star Trek (all)  
 ■ Star Wars (all) ■ Steel Magnolias ■ Superman (all) ■ The Taming Of The Shrew ■ Thelma And Louise ■ The  
 Thing ■ The Thomas Crown Affair ■ The Three Musketeers ■ Tin Cup ■ Titanic ■ Tombstone ■ Tootsie ■ Top  
 Gun ■ Tora! Tora! Tora! ■ Troy ■ U-571 ■ Unforgiven ■ War And Peace ■ Warriors ■ The Way We Were ■ We  
 Were Soldiers ■ The Witches of Eastwick ■ X-Men (all)

*Unless you have a True  
 Widescreen system, every  
 movie on this list will be  
 displayed by your projector as  
 a small image with large black  
 bars on the top and bottom.  
 The full list is 15 times this size  
 and growing.*

Fiddler on the Roof ■ The Fifth  
 Forrester ■ For Love Of The Game ■  
 Navarone ■ Forrest Gump ■ French  
 ■ The Game ■ Gandhi ■ Gattaca ■  
 Gladiator ■ Glengarry Glen Ross ■  
 Great Escape ■ The Guns Of  
 Potter (all) ■ Heat ■ Hero ■ How



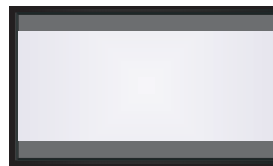
**DO YOU WANT TO WATCH MAJOR MOTION PICTURES LIKE THIS?**

## The Magic of True Widescreen™

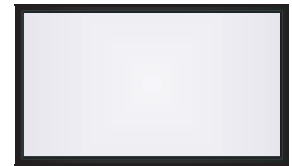
Today's home theater projectors beautifully show the 16:9 aspect ratio of HD sports, documentaries, games, television programs and many small format movies - filling the height of a 16:9 screen for a wonderful multimedia experience. Well, that 16:9 screen format basically means that its width is 1.78 times its height. But movie lovers know that over 70% of all major motion pictures are filmed in the wider cinematic aspect ratio of approximately 2.35:1 - their width is 2.35 times their height. This means to watch the most beautiful, dramatic and action-packed films of our time, they must be squeezed down to fit into the smaller 16:9 frame, leaving black bars above and below the image that diminish both your projector's ultimate performance and the truly dramatic experience these films represent.

Now you no longer need to make these sacrifices. We've all seen how the largest commercial cinemas open up the curtains to reveal that really wide screen for our favorite motion pictures, delivering the full impact of what the director meant us to see and feel. These cinemas do this by moving a special anamorphic projection lens into the projection beam to expand the image to fill the wider screen. Panamorph pioneered the development of high performance add-on lenses for the home cinema industry, bringing the technology of commercial movie theaters into your own home. Today the performance and value of our model UH380 lens has made it recommended by more projector manufacturers than any other lens. And its large, patented optics and convenient accessory components mean that even if you change projectors in the future the UH380 is probably the last lens you'll ever buy. Easily integrated by your custom home theater installer, you can build a full True Widescreen cinema from scratch or even upgrade your older 16:9 projection system to this immersive format and join the fastest growing trend in the high performance home cinema industry.

### Older style 16:9 multimedia projection

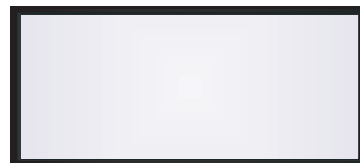


Major motion pictures are shown with black bars, sacrificing important vertical resolution

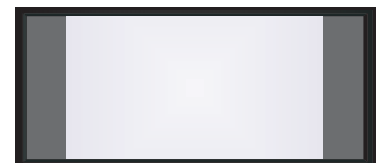


HDTV and smaller format movies use the full performance of the 16:9 projector

### True Widescreen cinema projection



Major motion pictures use the full performance of 16:9 projectors and become far more immersive



HDTV and smaller format movies still use the full performance of the 16:9 projector



## OR THIS?

### PANAMORPH-ENHANCED TRUE WIDESCREEN IMAGING

Only 810 rows of pixels from today's 1080p projectors are used to show a 2.35:1 movie when it is squeezed onto a 16:9 screen. The remaining pixels are turned off to produce the black bars, representing an amazing 518,400 pixels of lost resolution and brightness on every 2.35:1 movie watched! So the first step to enhanced 2.35:1 performance is to electronically stretch the movie in the vertical direction to use all 1080 rows of pixels - an increase of 33% higher resolution. We call this electronic vertical stretch **Panamorph Mode I** scaling and it is available either as an internal mode in some projectors or as a feature of most high performance external image processors. Of course, by vertically stretching to get this increased performance the movie is no longer in its original aspect ratio. So now the UH380 lens is placed into the beam to horizontally stretch the image to match the vertical stretch, returning the image to its original aspect ratio while retaining the 33% higher resolution. You've now effectively created a 2.35:1 image the same height as your original 16:9 image but also 33% wider. The final step? Get a wider format screen to complete the picture!

Now you have the ultimate 2.35:1 imaging system. What happens to smaller format content? There are two options. First, you can move the lens out of the way for non-2.35:1 content and turn off the Mode I scaling, basically converting your projector back to a 16:9 multimedia system again. You are still using the full height of your 2.35:1 screen but leaving the far left and right regions blank or covered with curtains like a real commercial cinema. The second option is that you can leave the lens in place and electronically squeeze any content that is not 2.35:1 in the horizontal direction - what we call **Panamorph Mode II** scaling. This is very convenient and produces the same effect as moving the lens out of the way. The down side is that this option uses less horizontal resolution. However, the visual difference between the two is not great because horizontal resolution is not nearly as important as vertical resolution (which is the same for either option). The choice is yours!

Higher brightness. Higher resolution. Greater impact. No black bars. All this with literally thousands of movies representing some of the greatest cinematic works of our time. Join the True Widescreen movement and feel the drama the director intended you to feel.

### The 2.35:1 Enhancement Process

True Widescreen is not just about larger, more perfectly framed major motion pictures. It also results in 33% more resolution and a net 25% increase in brightness.



Standard 2.35:1 image from a 16:9 projector showing black bars of unused pixels



The 2.35:1 image is first vertically stretched electronically to use all the pixels from a 16:9 projector

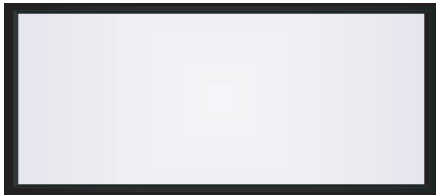


The image is then horizontally stretched using the UH380 Lens, restoring the original aspect ratio while using all the available pixels.

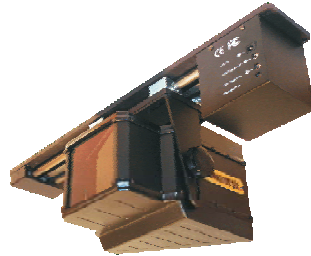
# THE UH380 LENS QUICK GUIDE

## WHAT DO I NEED TO UPGRADE TO THE ULTIMATE TRUE WIDESCREEN SYSTEM?

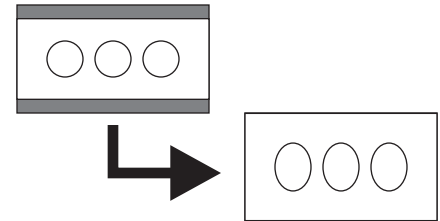
**1. A large format screen.** 2.35:1 is the most common aspect ratio, but we recommend a more optimum ratio of 2.40:1 due to variations in actual films.



**2. The Panamorph Lens - UH380** Lens with optional M380 Motorized Transport and P380 Attachment Kit (for compatible projectors).



**3. Panamorph Mode I scaling.** This is available either from your projector or from high performance external image processors.



## CAN I USE THE UH380 WITHOUT THE OPTIONAL COMPONENTS?

If the **P380 Attachment Kit does not fit your projector**, then you can have your professional installer mount the UH380 or the M380 transport directly to the ceiling or make a custom mounting plate.

**You do not need the M380 transport if your projector or external scaler has both Panamorph Mode I and II scaling.** In other words, you can permanently mount the UH380 in front of your projector and use electronic scaling for all formats. All your content will have the same brightness and resolution per unit area. However, the actual number of horizontal pixels will be reduced for smaller format content.

## HOW EASY IS IT TO GET THIS INCREASED PERFORMANCE AND IMPACT?

**Very.** Your installer can replace your 16:9 screen with a 2.40:1 screen that's the same height but 35% wider. They will then install the P380 attachment plate (or a custom plate for certain projectors) between your current projector and ceiling mount - the projector location does not need to move. They will then add either the UH380 Lens by itself or with the M380 Transport depending on your preference. Finally, they will add an external image processor or show you how to use your existing processor or projector (if capable) to engage the various Panamorph scaling modes.

## WHAT ARE THE GENERAL SETUP/SYSTEM GUIDELINES?

**The projector beam must be 3" wide or less to get through the lens entrance.** Check [www.panamorph.com](http://www.panamorph.com) for a list of tested projectors.

**Your throw distance (projector lens to screen) should be between 12 and 25 feet.** See the specifications page for specific throw distance options for graphics level performance.

**Your throw ratio (throw distance divided by native 16:9 image width) should be greater than 1.6.**

## WHY IS THE UH380 THE MOST RECOMMENDED LENS MODEL OF ALL BRANDS?

The UH380 Lens is one of the largest high performance lenses available, making it easy to set up and also compatible with almost every 16:9 projector made. In addition, Panamorph lenses all use a patented hybrid design of both cylindrical and prism-based components, yielding the reference-level performance of older style lenses costing over twice as much. This means, quite frankly, the UH380 is probably the last lens you'll ever need to buy for a True Widescreen home cinema.

## UH380 ANAMORPHIC LENS

Separate anamorphic lens with bracket.

<b>Model No.</b>	<b>UH380</b>
<b>Optics</b>	Patented coated glass five element cylindrical/prism hybrid design.
<b>Transmission</b>	92% average resulting in approx. 25% net image brightness increase due to higher pixel count.
<b>Edge distortion</b>	< 1% (lower at higher throw ratios).
<b>Compatibility</b>	Beam width up to 3.0". Throw ratios down to 1.4 (1.6+ recommended).
<b>Weight</b>	8.5 lbs (3.9 Kg), 10 lbs (4.5 Kg) shipping weight.
<b>Dimensions</b>	7" W x 7 3/4" L x 5 1/2"H
<b>Mounting</b>	Bracket included. No additional mounting hardware included with lens.
<b>Housing</b>	Black ABS/Polycarbonate composite and anodized aluminum.
<b>Throw distance</b>	12 to 25 feet (3.6 to 7.6 meters) typical. 14.5 to 17.5 feet (4.4 to 5.3 meters) for graphics-level performance.

## UH380 LONGER THROW GRAPHICS-LEVEL PERFORMANCE OPTIONS

For high resolution graphics application performance at longer throw distances. Lenses can be ordered with option installed, returned for conversion service, or a conversion kit can be installed by authorized Panamorph installers.

<u>Throw distance (feet)</u>	<u>Lens model</u>	<u>Conversion kit model</u>	<u>Conversion service code</u>
14.5 - 17.5	UH380 (standard)	<b>CK380-A</b>	<b>CS380-A</b>
17.5 - 20.5	<b>UH380B</b>	<b>CK380-B</b>	<b>CS380-B</b>
20.5 - 24.0	<b>UH380C</b>	<b>CK380-C</b>	<b>CS380-C</b>
24.0 - 29.0	<b>UH380D</b>	<b>CK380-D</b>	<b>CS380-D</b>
29.0 - 40.0	<b>UH380E</b>	<b>CK380-E</b>	<b>CS380-E</b>

## M380 MOTORIZED TRANSPORT

Remote controlled professional transport for UH380 Lens.

<b>Model</b>	<b>M380</b>
<b>Power supply</b>	100-240VAC, 1.5A, 16.5v output, 3 ft. cord
<b>Trigger jack</b>	3.5mm mono jack (tip positive) Lens in: +12v, 100mA, Lens out: 0v, <0.1mA
<b>Certification</b>	CE, FCC (M380 drive unit), UL Class 2 (PS)
<b>Remote</b>	IR for on/off/lens-in/lens-out 2 AAA batteries (not included)
<b>Dimensions</b>	3" W x 19.7" L x 3.6" H
<b>Weight</b>	5 lbs (2.3Kg) (excludes power supply/remote) (see <a href="http://www.panamorph.com">www.panamorph.com</a> for full downloadable product information)

## P380 ATTACHMENT KIT

For easy integration of either a fixed UH380 Lens or the M380 Transport with select ceiling mounted projectors.

<b>Model</b>	<b>P380</b>
<b>Compatibility</b>	Multiple projectors. See <a href="http://www.panamorph.com">www.panamorph.com</a> for updated lists and full specifications.
<b>Construction</b>	Black, powder coated 1/8" aluminum
<b>Dimensions</b>	17.5" x 18.5"
<b>Weight</b>	Approx. 3 lbs. (1.4 Kg) entire kit



**WARNING:** Use only qualified professionals when installing hardware to your ceiling!

Specifications subject to change without notice. Assembled in USA using components made in USA and other countries..

**LIMITED WARRANTY.** Panamorph, Inc. warrants this product to be free of defects in original workmanship and material for a period of eighteen 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.

# Panamorph<sup>TM</sup>

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[www.panamorph.com](http://www.panamorph.com)

