Panasonic

ideas for life

PT-AE2000U

Full High-Definition Home Cinema Projector

The Power of Full HD. Beauty of Rich Details.

Full HD

HOLLYWOOD TUNING

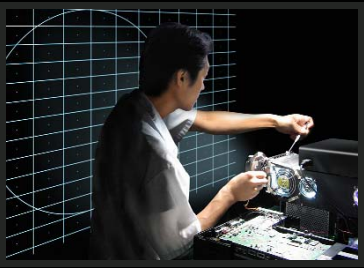
High-Precision Optical System

High, 16,000:1 Contrast Ratio and 1,500-Lumen Brightness

Almost all the key components in the optical system have been renewed to unleash the beauty of full-HD expression with an outstanding contrast ratio of 16,000:1 and brightness of 1,500 lumens.

Carefully Tuned Lens System for Maximum Full-HD Performance

To assure maximum clarity in full-HD images, the PT-AE2000U employs a new full-HD-compatible lens unit comprising 16 lens elements in 12 groups, including two large-diameter aspherical lenses and two high-performance ED (extra-low dispersion) lenses. Each lens is carefully aligned by highly skilled technicians to assure a uniform focusing balance from the center to the edges of the screen. The resulting high-quality images are clear and free of distortion and color bleeding.

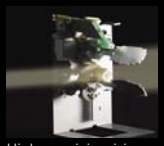


New, high-fidelity full-HD lens

Next-Generation Full-HD LCD Panels

The new next-generation full-HD LCD panels*[1] use vertically aligned liquid crystal molecules with inorganic alignment layers. When no voltage is applied, the molecules are aligned perpendicular to the glass substrate, so there is no light leakage and the substrate remains black (called "normally black" operation), providing higher contrast.

Dynamic Iris Designed for Full-HD

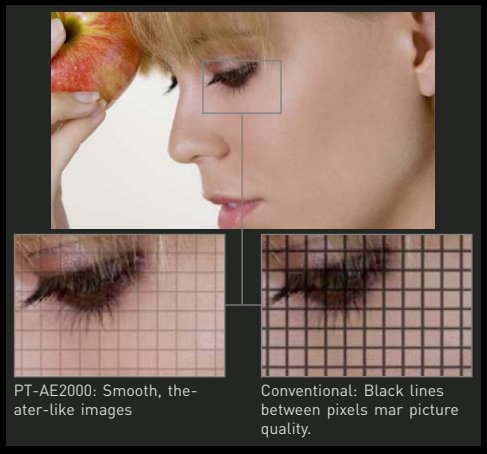


High-precision iris mechanism

This system works by analyzing histograms to determine the brightness level of each image, then adjusting the lamp power, iris and gamma curve*[2] accordingly to create the ideal image. The adjustments are made 60 times every second. In the PT-AE2000U we doubled the control speed pattern to further improve response and stability. This helps the projector achieve a wide dynamic range with swift smoothness for added beauty in both dark and bright scenes.

Smooth Screen Technology

Panasonic's Smooth Screen technology uses crystal double refraction to arrange pixels on a screen without gaps between them. The new Smooth Screen is optimized specifically to match the characteristic of PT-AE2000U's optical system, giving you the kind of smooth, vivid, and three-dimensional-like images you see in a movie theater.



PT-AE2000: Smooth, theater-like images

Conventional: Black lines between pixels mar picture quality.

Pure Color Filter Pro

This optical filter optimizes the light spectrum from the UHM projector lamp, helping to produce deeper blacks while improving purity levels in the three primary colors (red, green and blue). This advanced filter system improves color purity to such an extent that the color gamut is expanded to approximately match the level specified by the digital cinema industry.*[3] This gives images the deep, rich coloring that distinguishes movie images.

Lifelike Images in Crisp Detail

Developed in collaboration with leading filmmakers, Panasonic's Hollywood tuning process produces images that mirror the director's artistic vision and intent. This process is now further aided in the new PT-AE2000U by maximizing the image quality of the full-HD content in Blu-ray discs and HD broadcasts for large-screen viewing. The carefully tuned optical system teams up with a newly developed Detail Clarity Processor to dramatically boost image clarity. The PT-AE2000U offers the ultimate home cinema experience with crisp full-HD images in remarkable detail.

*1 C²FINE™ D7 1920 x 1080 panels.
*2 Parameters for adjusting the output brightness gradation level according to the input signal.
*3 Specifications put forth by the Society of Motion Picture and Television Engineers (SMPTE) DC28 Digital Cinema committees.

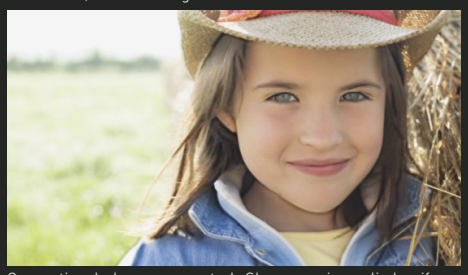
Full-HD Realism from a Powerful, Digital Processing Engine

Detail Clarity Processor

The PT-AE2000U introduces a powerful new digital image processing circuit, called the Detail Clarity Processor. This function analyzes the frequency of the video signal in each scene and extracts information on the distribution of the high-, medium-, and low-frequency image components. It then applies appropriate sharpness to each portion of the image based on the extracted information. This brings greater clarity and sharpness to details, by reproducing fine nuances that were lost due to image compression. The resulting images have a more natural, life-like expression than those of previous image-processing methods.

Detail Clarity Processor

Detail Clarity Processor: Signal frequency is extracted real-time and necessary sharpness is applied at varying degrees for natural, life-like images.

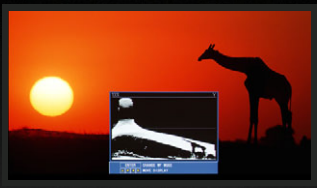

Conventional sharpness control: Sharpness is applied uniformly, which can cause a halo or ring effect.

Max. 16-Bit Digital Processing

The PT-AE2000U handles up to 16-bit digital image processing. Providing four times the gradation of our previous model, this circuit faithfully reproduces even subtle hues and brightness variations to bring out extremely fine image texture and depth.

New Waveform Monitor

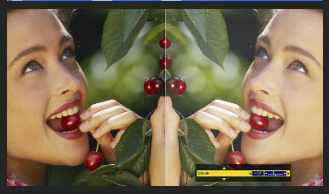
When the output level of the source device fluctuates due to the performance of the device or its cable connection, the original black and white levels of the image content cannot be reproduced. With the PT-AE2000U you can now view the waveforms on the screen and adjust the settings both automatically and manually as you prefer.


The PT-AE2000U gives home consumers a projector with the kind of waveform monitor used in equipment for professionals.

Split Adjust Mode

You can freeze any scene you wish, and then make adjustments while easily comparing the original image and the adjusted image side-by-side.

Freeze any scene you wish.


The inverted display shows the images before and after adjustment. Normal display is also selectable

Before adjustment After adjustment

Cinema Color Management (CCM)

This is an innovative color correction system that enables free color control. You can adjust one color without affecting the neighboring colors, so it is easier to get just the right color equalization in hue, luminance and saturation.

Flexible Installation, Easy Operation

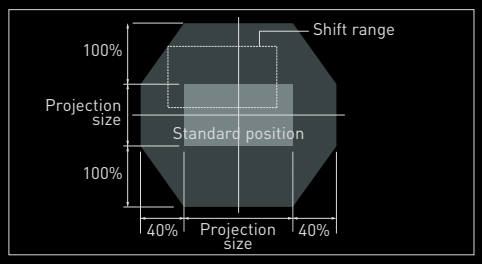
Versatile Input Interfaces

The PT-AE2000U has three HDMI input terminals for digital transmission without image degradation, and two component input terminals. The HDMI input terminals also support Deep Color and xvYCC color space of the new HDMI 1.3a standard.*4

*4 Effective in Color 1 image mode.

2x Optical Power Zoom/Focus and Wide Lens Shift Range

A 2x optical power zoom/focus lens and a lens shift function together make it possible to project a 120-inch picture from as close as 11´10˝ (3.6 m) to the screen or as far as 23´7˝ (7.2 m) away. In addition, the image can be shifted ±100% vertically, and ±40% horizontally. This gives you outstanding setup flexibility. If you choose to ceiling-mount the projector, you can zoom and focus by remote control.



Learning Remote Control with Function Buttons

The universal "learning" remote can be used to control multiple devices in your home theater. You can also assign direct shortcuts to functions you frequently use on the three function buttons.

Backlit buttons

Easy Maintenance

For easier maintenance, you can replace the filter from the side and the lamp from the top. The dust filter and lamp are easily replaced even after the PT-AE2000U is installed on the ceiling.

Other Features

- Seven picture mode includes Cinema 1/2/3, Normal, Dynamic, Color 1/2.
- 3D noise reduction for high-precision noise detection and reduction
- Scene-adaptive MPEG noise reduction effectively blocks regular noise and minimizes mosquito noise.
- Scene adaptive resizing LSI improves quality when resizing 480p images or those from other sources with resolution lower than the PT-AE2000U's native resolution.
- 24p compatible
- Progressive cinema scan (3/2 pulldown) and HD IP
- Selectable frame response
- Up to sixteen sets of adjustment settings can be stored in memory with custom names that make them easy to remember
- Built-in test pattern
- On-screen input guidance
- Auto input search
- Normal/economy lamp power selection
- Off-timer
- Lens-centered design
- Quiet operation: 22 dB (in Economy lamp mode)

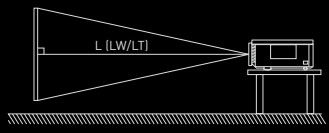
For detailed explanation of features please visit our Projector Global Web Site
http://panasonic.co.jp/pavc/global/projector

Specifications

Power supply	100–240 V AC, 50/60 Hz
Power consumption	240 W (Approx. 0.08 W in standby mode with fan stopped)
LCD panel*1	
Panel size	0.74˝ (17.78 mm) diagonally
Aspect ratio	16:9 aspect ratio
Display method	Transparent LCD panel (x 3, R/G/B)
Drive method	Active matrix
Pixels	2,073,600 (1,920 x 1,080) x 3, total of 6,220,800 pixels
Lens	Powered zoom (2x)/powered focus, F 1.9 - 3.2, f 22.4 mm–44.8 mm
Lamp*2	165 W UHM™ lamp
Brightness*3	1,500 lumens*4
Contrast*3	16,000:1*4 (full on/full off)
YPBPR signal compatibility	480i (525i), 480p (525p), 576i (625i), 576p (625p), 720 (750)/50p, 720 (750)/60p, 1,080 (1,125)/24p, 1,080 (1,125)/50i, 1,080 (1,125)/50p, 1,080 (1,125)/60i, 1,080 (1,125)/60p
Color system	PAL, PAL-M, PAL-N, PAL 60, SECAM, NTSC, NTSC 4.43,
Optical axis shift*5	Horizontal ±40% and vertical ±100%
Keystone correction range	Vertical: approx. ±30°
Terminals	
HDMI IN	HDMI connector x 3
COMPUTER IN	D-sub HD 15-pin (female) x 1
COMPONENT IN	RCA pin (Y, PB/CB, PR/CR) x 2
S-VIDEO IN	Mini DIN 4-pin x 1
VIDEO IN	RCA pin x 1
SERIAL	D-sub 9-pin x 1 (RS-232C based)
Dimensions*6 (W x H x D)	460 x 130 x 300 mm (18-1/8˝ x 5-1/8˝ x 11-25/32˝)
Weight	7.2 kg (15.9 lbs.)
Operating environment	Temperature: 0°–40°C (32°–104°F), Humidity: 20%–80% (no condensation)
Supplied accessories	Power cord, Wireless remote control unit, Batteries for remote control (AA type x 2)
Optional accessories	
ET-LAE1000	Replacement lamp unit
ET-PKE2000	Ceiling mount bracket for high ceilings
ET-PKE1000S	Ceiling mount bracket for low ceilings
ET-PCE2000	Cable cover

Image size/projection distance

Projection size (16:9)	Projection distance (L)	
Diagonal length	Min (Wide)	Max (Telephoto)
1.01 m / 40˝	1.2 m / 3´11˝	2.3 m / 7´7˝
1.52 m / 60˝	1.8 m / 5´10˝	3.5 m / 11´6˝
2.03 m / 80˝	2.4 m / 7´10˝	4.7 m / 15´5˝
2.54 m /100˝	3.0 m / 10´2˝	6.0 m / 19´8˝
3.05 m /120˝	3.6 m /11´10˝	7.2 m / 23´7˝
3.81 m /150˝	4.5 m / 14´9˝	9.0 m / 29´6˝
5.08 m /200˝	6.0 m / 19´8˝	12.0 m / 39´4˝



*1 The projector uses a type of liquid crystal panel that typically consists of millions of pixels. This panel is built with very high-precision technology designed to provide one of the finest possible images. Occasionally, a few pixels may remain turned on (bright) or turned off (dark). Please note that this is an intrinsic characteristic of the manufacturing technology that affects all products using LCD technology.

*2 The projector uses a high-voltage mercury lamp that contains high internal pressure. This lamp may break, emitting a large sound, or fail to illuminate, due to impact or extended use. The length of time that it takes for the lamp to break or fail to illuminate varies greatly depending on individual lamp characteristics and usage conditions.

*3 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.

*4 In AI mode, with dynamic iris on.

*5 Shift range is limited during simultaneous horizontal and vertical shifting.

*6 Excluding protrusions

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Please contact Panasonic or your dealer for a demonstration.

JQA-1617 EMS Accreditation RE 009 EC98J2010 051

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PT-AE2000UL1-07SEP10K Printed in Japan.