Panasonic

ideas for life

PT-AE500E

High Definition
Home Cinema Projector

Breathtaking picture quality from Panasonic, the pacesetter in home cinema projectors

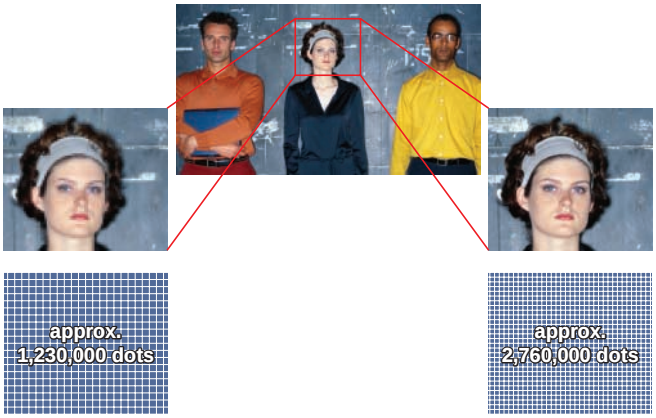
As a leader in the field of home cinema projectors, Panasonic has been doing important work in the imaging field for years. Key research at the company's facilities, such as the Panasonic Hollywood Laboratory in Hollywood, California, has led to breakthroughs that have dramatically improved picture quality. The new PT-AE500 incorporates Panasonic advances such as a high-definition wide LCD panel, Cinema Works circuitry, full 10-bit digital processing and gamma correction, and New Smooth Screen technology to achieve a level of image fidelity and impact that rivals what you would see in the movie theatre. And one of Hollywood's top colourists took part in the development process to ensure a remarkable level of colour fidelity. Enjoy your favorite movies on the large screen. Experience a high level of immediacy and excitement when watching sporting events. The PT-AE500 packs everything you could want in a high-definition home cinema projector into a slim, unobtrusive body.

A picture that's sharp, clear, and extraor

Extremely detailed, lifelike images thanks to new technology

High-definition wide LCD panel for sharp, detailed images

The secret behind the incredibly sharp, detailed picture of the PT-AE500 is a high-definition (1,280 x 720 pixels) wide LCD panel. Its three-layer (RGB) structure realizes an effective total of approximately 2.76 million pixels. That translates into a beautiful picture with stunning detail and exceptional fidelity when reproducing high-quality video source material such as high-definition digital terrestrial or satellite broadcasts. A new optical system developed specifically for high-definition LCD panels delivers 850 lumens of brightness and realizes a contrast ratio of 1,300:1, putting the PT-AE500 at the absolute top level of performance among LCD-based home cinema projectors. This high contrast—brilliant images and deep, vivid blacks—gives the picture a startling realism and impact.



Conventional LCD Panel
858 x 484 pixels x3

PT-AE500 LCD Panel
1,280 x 720 pixels x3

Cinema Works integrated high-quality picture circuitry for enhanced expressiveness

10-bit full digital processing and 10-bit gamma correction

Accurate reproduction of subtle variations in brightness or hue is realized using 10-bit full digital processing and 10-bit gamma correction, which quadruple the number of displayable colours to over 1 billion (with 1,024 gradations).

10-bit full digital processing and 10-bit gamma correction

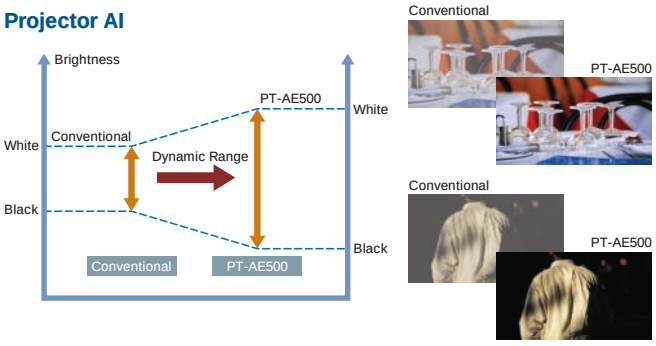
Picture reproduction with large-stepped brights, and blurred darks

Ideal picture reproduction with the correction of the PT-AE500

Projector AI

The projector AI system is based on technology employed in high-end digital projectors used in movie theatres. It automatically adjusts the lamp brightness to the optimum level to match the characteristics of the picture in real time, dramatically increasing the dynamic range, accurately rendering black portions of the screen as deep, dark blacks, and achieving a stunningly high contrast ratio of 1,300:1.

Projector AI



Dynamic Sharpness Control

The Dynamic Sharpness Control circuit adjusts the video signal waveforms based on the difference in brightness of adjacent pixels for a sharp, clear picture that is relatively unaffected by signal noise.

Digital Cinema Reality™ Circuit

Digital Cinema Reality™ Circuit interlace/progressive conversion technology automatically detects when the input signal derives from filmed material and selects the optimum progressive processing method to assure faithful reproduction of the original image.

Dynamic Sharpness Control

Conventional

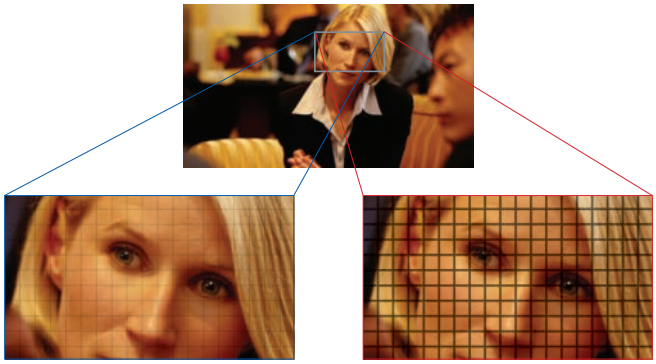
PT-AE500

dinarily film-like from a sleek, compact unit

and features

New Smooth Screen technology for film-like realism

The PT-AE500 brings enhancements specifically designed for its high-definition wide LCD panel to the acclaimed Smooth Screen technology of earlier Panasonic home cinema projectors. New Smooth Screen technology effectively eliminates the “screen door effect”—the black lines between pixels that mar the images of conventional LCD home cinema projectors. The high-definition picture of the PT-AE500 is remarkably smooth and film-like, and at the same time amazingly sharp and detailed.



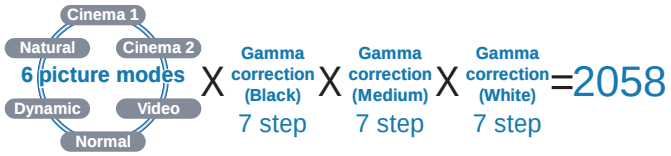
PT-AE500: Smoothly textured images, as in a movie theatre

Conventional: “screen door” effect

User equalizing function

You can decide precisely how the PT-AE500 presents your images. With 2058 picture quality settings to choose from, contrast, brightness and gamma level are widely adjustable across 6 picture modes. Whether you are watching a movie, a live music performance or a sports event, the PT-AE500 will project the scene exactly how you want to see it.

Cinema 1	When watching movies. The projected image will be mellowed. This mode was well tuned to the look of Hollywood movie.
Cinema 2	When watching movie. The projected image will be clear and have high contrast.
Video	When watching video source such as music or sports programs.
Normal	When watching various image source.
Dynamic	When watching in a bright room.
Natural	To reproduce the colour of the image faithfully from the image source.



Other image enhancements

- Originally developed optical system: Covers an unprecedented wide colour reproduction area
- New noise reduction: Dramatically reduces ghosts and blurs
- Three sets of picture adjustment settings can be stored in memory
- 3-dimensional Y/C separation: Produces clear, sharp images by suppressing colour bleeding

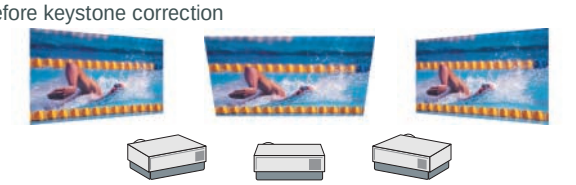
packed with convenient features

Convenient features for simple setup and easy operation

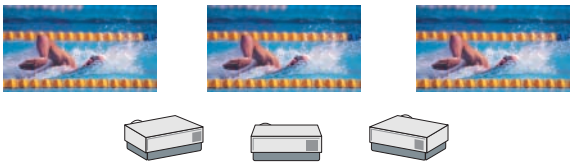
Digital keystone correction

The PT-AE500 provides both vertical and horizontal keystone correction to compensate for image distortion when the projector is used at an angle to the screen. Vertical keystone correction compensates for distortion in the up-and-down direction, while horizontal correction compensates for right-to-left distortion. You enjoy distortion-free images when projecting from an angle of up to 30 degrees in any direction (up, down, left or right).

Before keystone correction



After keystone correction



A variety of terminals including HDCP compatible DVI-D and trigger terminal

Use the PT-AE500 with a DVD or video player, a PC, game machine, and more. It is equipped with HDCP compatible DVI-D inputs that directly accept digital signals from DVD and other digital sources, even those that are copy protected. The component video input terminals allow you to enjoy the full quality of images from high-end progressive scan DVD players. The PC IN terminal can be used to connect a game machine and PC. Other terminals include composite video, S-Video and many more. A trigger terminal is also fitted, so opening and closing the screen may be simply achieved by powering the projector on and off.

Quiet operation—only 27 dB*

A new, quiet fan lowers operating noise while reducing light leakage by the use of twin blades. Thanks to this special design, you can fully enjoy the beauty of the large-screen images with minimal distraction noise.
*In low mode.

100-inch diagonal wide-screen images at a distance of 3.1 m (10.17′)

The extra-short-throw lens on the PT-AE500 produces big images in small spaces. For example, you can get a 100-inch diagonal 16:9 wide-screen image from a distance of just 3.1 m (10.17′). The image size ranges from 40 to 200 inches, with easy adjustment using the manual zoom.

Slim, stylish and compact

Measuring just 280 x 278.5 mm (11″ x 10-9/16″) and weighing less than 2.9 kg (6.4 lbs.), the PT-AE500 is thin, compact and easy to carry. You can set it up just about anywhere—on a table, in an AV rack, or suspended from the ceiling (using an optional ceiling mount).

Other convenient features

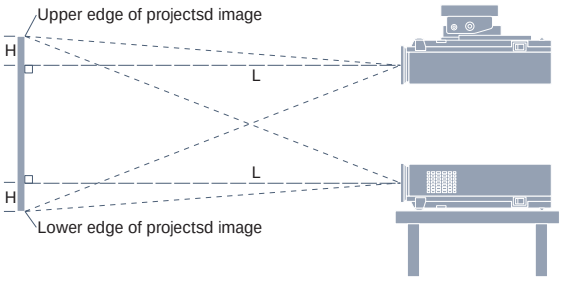
- Back-lit, multi-function wireless remote control
- 7-language on-screen menu operation (English, French, German, Spanish, Italian, Chinese, Japanese)

SPECIFICATIONS

Power supply*1:	100–240 V AC, 50/60 Hz
Power consumption:	180 W (1 W in standby mode with fan stopped)
Optical system:	Dichroic mirror separation/prism synthesis system
LCD panel:	Panel size: 0.7″ (diagonal) (16:9 aspect ratio) Display method: Transparent LCD panel (x 3, R/G/B) Drive method: Active matrix Pixels: 921,600 (1280 x 720) x 3, total of 2,764,800 pixels Pixel configuration: Stripe
Lens:	Manual zoom/focus lens (1:1–1:1.2), F 1.9–2.2, f 22.0–26.2 mm
Lamp:	130 W UHM™ lamp
Screen size:	1,016–5,080 mm (40–200 inches) diagonally, 16:9 aspect ratio
Colours:	Full colour (16,777,216 colours)
Colour system:	PAL, PAL-M, PAL-N, PAL 60, SECAM, NTSC, NTSC 4.43
Screen aspect ratio:	16:9 (4:3 compatible)
Brightness:	850 lumens*2
Centre-to-corner uniformity ratio:	90%
Contrast:	1300:1*3 (full on/full off)
Resolution:	RGB: 1280 x 720 pixels (1920 x 1080 pixels with compression)
Scanning frequency:	RGB: Horizontal: 30–70 kHz, Vertical: 50–87 Hz YPBPR: 480i (525i): fH 15.75 kHz; fV 60 Hz 625i (576i): fH 15.63 kHz; fV 50 Hz 480p (525p): fH 31.5 kHz; fV 60 Hz 625p (576p): fH 31.25 kHz; fV 50 Hz 720p (750p): fH 45 kHz; fV 60 Hz 1080i (1125i): fH 33.75 kHz; fV 60 Hz 1080i (1125i): fH 28.125 kHz; fV 50 Hz S-Video/Video: fH 15.625 kHz; fV 50 Hz (PAL, SECAM, PAL-N) fH 15.75 kHz; fV 60 Hz (NTSC, NTSC 4.43, PAL-M, PAL 60)
Optical axis shift:	17:1 (fixed)
Keystone correction range:	Vertical: approx. ±30°, horizontal: approx. ±30°
Installation:	Ceiling/desk, front/rear (menu selection)
language*1:	English, French, German, Spanish, Italian, Chinese, Japanese
Terminals:	DVI-D IN: DVI-D 24-pin x 1 PC (RGB) IN: D-sub HD 15-pin (female) x 1 R, G, B: 0.7 Vp-p (1.0 Vp-p for Sync on G), 75Ω HD/VD/SYNC: TTL, high impedance (positive/negative polarity) COMPONENT IN: RCA pin (Y, PB/CB, PR/CR) x 1, Y: 1.0 p-p, 75Ω PB/PR (CB/CR): 0.7 Vp-p, 75Ω VIDEO IN: RCA pin x 1, 1.0 Vp-p, 75Ω S-VIDEO IN: Mini DIN 4-pin x 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75Ω TRIGGER (out): M3 jack, (stereo mini) When the power is turned on during projection: 12 V When the power is turned off: 0 V AV1*4: SCART (Euroconnector) x 1
Power cord length:	3 m
Cabinet material:	ABS/PC
Dimensions (W x H x D):	280 x 85 x 278.5 mm (11″ x 3-11/32″ x 10-9/16″)
Weight:	2.9 kg (6.4 lbs.)
Operating environment:	Temperature: 0°–40°C (32°–104°F) Humidity: 20%–80% (no condensation)
Remote Control Unit:	Power supply: 3 V DC (UM-4 (AAA) battery x 2) Operation range: Approx. 7 m when operated from directly in front of the signal receptor) Dimensions (W x H x D): 43 x 135 x 22 mm (1-11/16″ x 5-5/16″ x 7/8″) Weight: 70 g (2.5 oz.) (including batteries)
Supplied accessories:	Power cord, Wireless remote control unit, Batteries for remote control (UM-4 x 2), AV cable (3 m/9.9′), Carrying bag

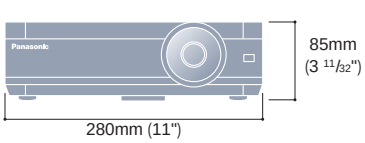
*1: Power supply and language specifications may differ depending on destination country.
*2: The figures are averages of all products at the time of shipment, and are indicated in accordance with JIS X6911: 2003 Data Projector Specifications Format. The measurement method and conditions are described in Appendix 2.
*3: In AI mode
*4: Available only in limited countries and areas.

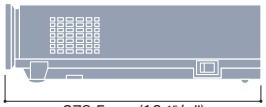
IMAGE SIZE / PROJECTION DISTANCE



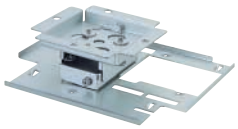
Aspect ratio	Diagonal image size	Distance to screen min.	Distance to screen max.
16:9	40″ / 1.0 m / 3.3′	1.2 m / 3.9′	1.4 m / 4.6′
	60″ / 1.5 m / 4.9′	1.9 m / 6.2′	2.2 m / 7.2′
	80″ / 2.0 m / 6.7′	2.5 m / 8.3′	2.9 m / 9.5′
	100″ / 2.5 m / 8.3′	3.1 m / 10.2′	3.7 m / 12.1′
	150″ / 3.8 m / 12.5′	4.7 m / 15.4′	5.6 m / 18.4′
	200″ / 5.1 m / 16.7′	6.2 m / 20.3′	7.4 m / 24.3′
4:3	40″ / 1.0 m / 3.3′	1.5 m / 4.9′	1.8 m / 5.9′
	60″ / 1.5 m / 4.9′	2.3 m / 7.5′	2.7 m / 8.9′
	80″ / 2.0 m / 6.7′	3.0 m / 9.8′	3.6 m / 11.8′
	100″ / 2.5 m / 8.3′	3.8 m / 12.5′	4.6 m / 15.1′
	150″ / 3.8 m / 12.5′	5.7 m / 18.7′	6.9 m / 22.6′
	200″ / 5.1 m / 16.7′	7.6 m / 24.9′	9.2 m / 30.2′

DIMENSIONS





OPTIONS



Ceiling mount bracket:
ET-PKE300

Screen: ET-SR90CT
80″—90″ diagonal,
W x H: 1.8 x 1.8 m
(5.9′ x 5.9′)

Screen: ET-SR70CT
65″—70″ diagonal,
W x H: 1.4 x 1.4 m
(4.6′ x 4.6′)

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PT-AE500EA1-03OCT50K Printed in Japan