Panasonic

ideas for life

PT-AE900E

High Definition
Home Cinema Projector

TENTATIVE

Experience the Ultimate in Professional Quality

HD ready

Made by Panasonic,

At one point during the development process, the PT-AE900 was sent to Hollywood. At the Panasonic Hollywood Laboratory, fine tuning was done to enhance the picture quality. Over several months, we worked with a team of specialists from the motion picture industry, making a series of minute adjustments to the projector's image reproduction system. We wanted to bring the excitement of the cinema to the home and reproduce faithfully the picture quality intended by the moviemakers. These were ideals we could only achieve with the collaboration of professionals having experience in actual movie production. Several cinematographers, the people responsible for making sure the images in a film look exactly as the director intended, as well as David Bernstein, who has worked as a postproduction colourist on telecine video transfers of many outstanding films, played an important role in bringing a new level of visual expressiveness to the PT-AE900.

Applying the latest technologies to get closer to the artistic sense of a top Hollywood colourist

In the movie world, each creator has a personal definition of the perfect image. During development of the PT-AE900, to realize an image on screens at home true to the intentions of the creator, Panasonic worked with David Bernstein, a leading Hollywood colourist. Panasonic developed and equipped the PT-AE900 with new, unique integrated cinema quality circuitry and core image optimisers to meet the strict demands of colourists. We incorporated into the PT-AE900 the artistic creativity of David Bernstein, who has an unrivalled sense of picture-quality colour coordination. Thereby was born the PT-AE900, an LCD projector with excellent picture reproduction that is truly worthy to be called "Hollywood picture quality".

David Bernstein is a top Hollywood colourist, referred to as a "Golden Eye", whose expertise is evident in the telecine* process for numerous successful films.
* Telecine: The process of transferring a film to video.

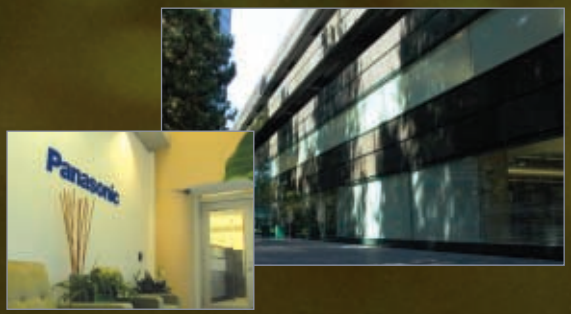
Tuned by Hollywood

One key to enhancing picture quality is black reproduction. Panasonic developed the new Dynamic Iris, with an expanded iris range, and a new optical block to give the PT-AE900 deeper, richer blacks than earlier home cinema projectors provided. By substantially expanding the dynamic range available for expressing images, we achieved a contrast ratio of 5500:1 along with the brightness of 1,100 lumen. What's more, new Smooth Screen technology combined with a new LCD panel allows the projector to reproduce smoother, more natural looking images.

All this hard work paid off. Today the PT-AE900 is recognized as a cinema projector suitable for professional video reproduction. It is even used as a reference monitor on some movie sets.

Panasonic Hollywood Laboratory (PHL)—the home of Hollywood picture quality

Located in Hollywood, California, PHL has been performing research on digital conversion of film stock, DVD video compression, and digital cinema for a decade. Recent work has focused on the development of standards for the next generation of optical media employing the Blu-ray Disc and projection technology based on high-definition image compression. The close relations between PHL and many leading Hollywood professionals (movie studio technicians, directors, cinematographers, and colourists) and our ongoing research played a key role in the development of the PT-AE900.

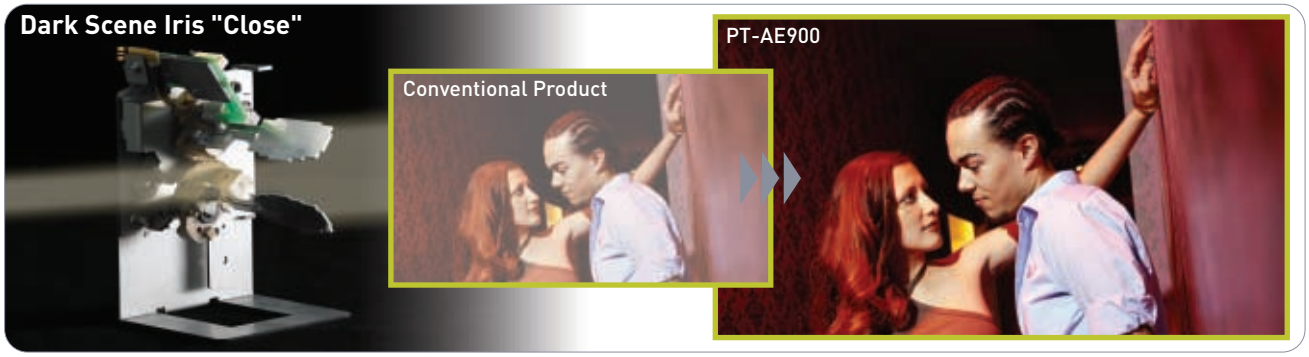


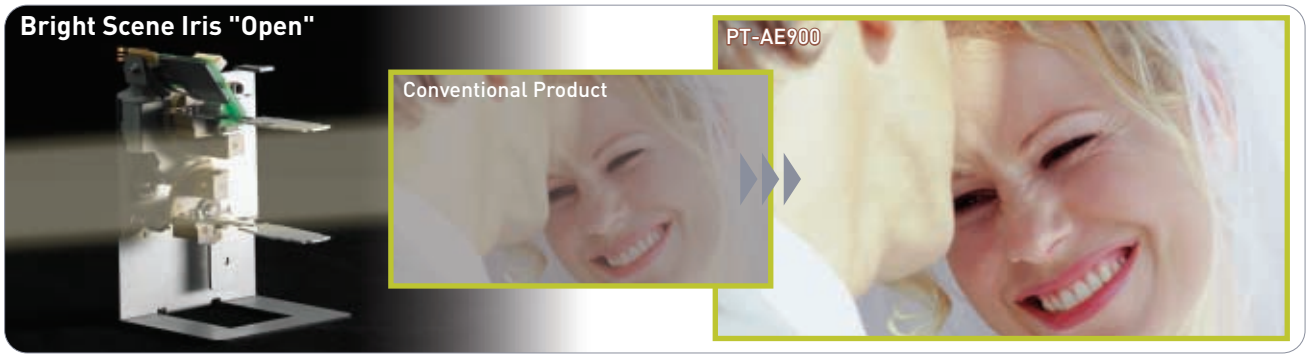
Developing advanced technologies to enhance tho

New Dynamic Iris realizes world's first* 5500:1 contrast ratio with a brightness of 1,100 lumens for deeper, richer blacks

Rendering deep, rich blacks is essential to faithful video reproduction. With this in mind, Panasonic added further refinements to the highly regarded Dynamic Iris with scene-tracking capability for the PT-AE900. Using data obtained from frame-by-frame histogram analysis of brightness, digital image processing technology controls the light intensity, iris, and gamma curve in real time. Now the iris range of the new Dynamic Iris has been extended by about 60% compared to conventional models. This, combined with histogram analysis employing algorithms for both brightness and darkness, enables the PT-AE900 to render bright scenes more brightly and dark scenes with deeper, richer blacks. Histogram analysis can detect as many as 3,000,000,000 scene types. At the same time, Dynamic Gamma boosts the brightness of picture details that would otherwise be swallowed up in the dark portions. The contrast ratio has been further increased by an optical system upgrade that includes a new coating for the prism. The result of all these improvements is the high contrast ratio of 5500:1 along with the high brightness of 1,100 lumens. Enjoy the deep, crisp blacks you've previously only experienced at the cinema.

* For an LCD projector producing 1,100 lumens or more, as of September 2005.



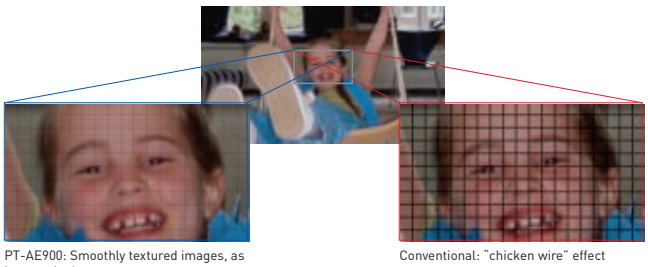


Cinema Colour Management technology

The colour correction system Cinema Colour Management (CCM) was developed to enable free control of colours and has a proven track record. Previously it had been difficult to reflect the colourist's intentions, because correcting one colour affected certain others. With CCM technology, individual correction of approximately 1,070,000,000 colours without affecting other colours became possible. Colour control usually includes control of contrast, but CCM technology goes even further and controls brightness too. Incorporating CCM moves colour correction closer to the process used for motion pictures.

New Smooth Screen technology

Other LCD home cinema projectors can suffer from the "chicken wire effect"—black lines between pixels that mar the smoothness of the images. New Smooth Screen technology, developed exclusively by Panasonic, virtually eliminates this problem by providing the high contrast ratio and other improvements that complement the new LCD panel of the PT-AE900. Also, blurriness and flickering have been removed during vertical panning, giving the PT-AE900 a sharp and detailed high-definition picture that is remarkably smooth and realistic.



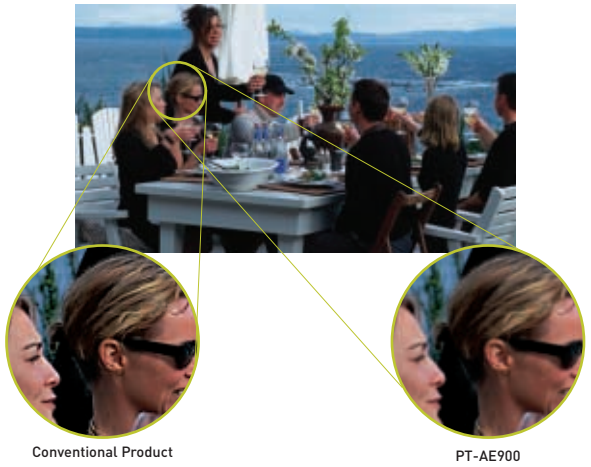
PT-AE900: Smoothly textured images, as in a movie theatre

Conventional: "chicken wire" effect

se existing delivers Hollywood picture quality.

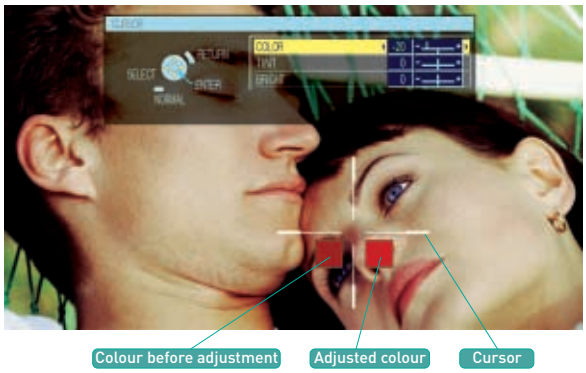
New Dynamic Sharpness Control

Conventional projectors emphasize sharpness without regard for differences in brightness. This can cause a halo or "ringing" effect around the edges of objects, reducing their perceived three-dimensionality. Dynamic Sharpness Control automatically detects the brightness around the target pixels as scenes change. It prevents the application of unnecessary sharpness to pixels with large changes in the brightness level. Sharpness is only added to pixels with small changes in brightness level. The application of sharpness is adjusted for diagonally adjoining pixels as well as vertically and horizontally adjacent pixels. This largely eliminates noise amplification and delivers clearer, more natural looking images. The PT-AE900 also features a newly redesigned sharpness filter that further enhances the reproduction of fine detail along the edges of objects.



Seven picture modes and user equalising function

Seven preset picture modes let you select at the touch of a button the picture characteristics to best match the source material. Picture mode Cinema 1 was supervised by David Bernstein, a leading Hollywood colourist. Incorporating CCM technology, the PT-AE900 has a user equalising function that lets you decide precisely how images look on your screen. In each of the seven preset picture modes, the high, mid, and low gamma levels are adjustable, resulting in a total of 34,391 possible picture quality setting combinations. The PT-AE900 features a broader adjustment range than earlier models and control screens that are more legible and easy to use. This makes customizing the picture fun and provides professional results. You can even store up to three sets of adjustment settings in memory for use any time. Now it is easy to select the best picture settings for any source material, whether movies, live music, or sports events.



Cinema 1	A calm, gentle image setting for watching movies.
Cinema 2	An image setting emphasizing deep, rich colour reproduction. Suitable for older film classics.
Cinema 3	An image setting designed for clear reproduction of dynamic scenes. Suitable for action films and animated cartoons.
Video	Suitable for video sources with a lot of movement, such as music or sports programs.
Natural	An image setting designed to faithfully reproduce the colours of the image source.
Normal	A general image setting suitable for a variety of image sources.
Dynamic	An image setting designed for use in a brightly lit room.

Other features

10-bit full digital processing
10-bit full digital processing is used for the processing of the video signal from the input to the output. This enables the PT-AE900 to display 1,070,000,000 colours (1,024 gradations), so subtle variations in brightness or hue are reproduced with beautiful accuracy. Furthermore, gamma correction is applied separately to the red, green, and blue signals, allowing for ultra-fine adjustment of the picture quality with a high precision of 0.01%.

Progressive Cinema Scan (3/2 Pulldown) and HD IP
Progressive Cinema Scan (3/2 Pulldown) interlace/progressive conversion technology automatically detects when the input signal is derived from filmed material. HD IP enables the PT-AE900 to convert signals recorded at a higher quality than was possible with conventional models.

Wide, high-definition LCD panel for sharp, detailed images
A wide 1,280x720-pixel, high-definition, LCD panel generates the sharp images of the PT-AE900. Its three-layer construction realizes 2.76 million pixels, providing a beautifully detailed picture of exceptional fidelity—especially from superior video sources such as high definition digital broadcasts.

UMP Lamp delivers 1,100 lumens
Developed by Panasonic expressly for superior colour reproduction, the UHM lamp delivers a brightness of 1,100 lumens. Enjoy beautiful pictures that are not affected by ambient lighting.

* Conceptual illustrations to show comparative image quality.

Made by Hollywood,

The PT-AE900 makes it easy to transform your room into a home cinema offering stunningly realistic image reproduction. The 2x optical zoom lens makes it possible to project a 100-inch screen image from a distance of 3 to 6 metres, so you can change any room into a cinema regardless of size. The vertical and horizontal lens shift function lets you adjust the image position by moving a joystick on the unit's front panel. Because the projector does not need to be situated directly in front of the screen, you can place it wherever is most convenient. Positioning the projector is simple, thanks to its lightweight and compact design.

Played by Panasonic

The supplied learning remote control can memorise the functions of other home cinema components. Using this single remote control, you can control multiple pieces of AV equipment—for example, perform DVD playback or adjust the sound level—and even dim the lights if your room light can be remote controlled. Now you'll never have to juggle an armful of remotes again!

With its sharp, clear images and giant picture size, the PT-AE900 sets a new standard for home cinema projectors.

* Screen images used in this brochure are composite photo insets.

Unsurpassed ease of setup matched with unequalled

Easy to set up using 2x optical zoom lens and vertical and horizontal lens shift

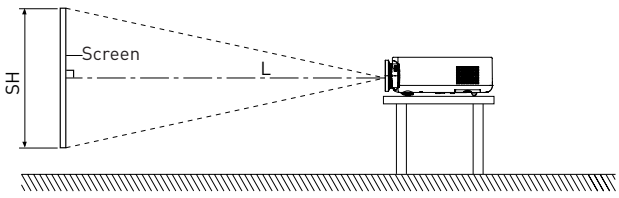
2x optical zoom lens

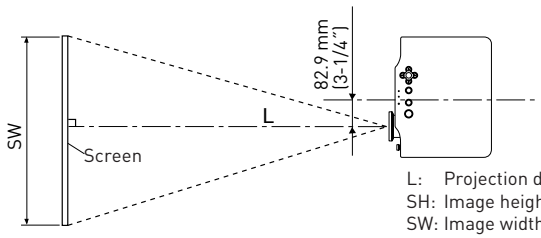
You can use the projector in many different locations due to the wide range of throw distances provided by the 2x optical zoom lens. For example, to obtain a 100-inch picture you can place the projector anywhere from as close as 3 metres to as far as 6 metres away. Situate the projector on a table in front of viewers, suspend it from the ceiling above them, or place it on a bookshelf behind them—it will still produce the same dynamic large-screen picture. Expect stunning images from the 2x optical zoom lens at a wide range of projection distances and in rooms both small and large!

Vertical and horizontal lens shift

Adjust the positioning of the picture using vertical and horizontal lens shift! A simple joystick operation moves the lens within the projector housing, moving the projected picture correspondingly. This means the projector can be positioned in many different locations. Unlike the electronic correction used in conventional projectors, the vertical and horizontal lens shift mechanism physically repositions the lens, so there is no deterioration in image quality. This advanced function allows the PT-AE900 to fit perfectly into your home.

IMAGE SIZE / PROJECTION DISTANCE

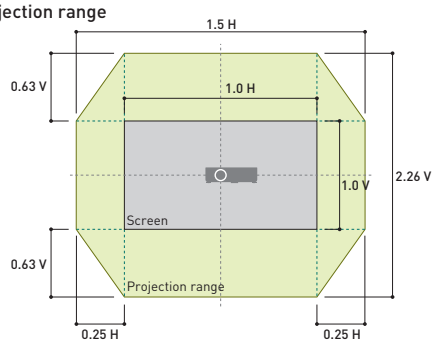




L: Projection distance
SH: Image height
SW: Image width

Screen size (16:9)			Projection distance (L)	
Diagonal length	Height (SH)	Width (SW)	Wide (LW)	Telephoto (LT)
1.01 m (40″)	0.50 m (1′7″)	0.89 m (2′11″)	1.2 m (3′11″)	2.4 m (7′10″)
1.27 m (50″)	0.62 m (2′)	1.11 m (3′7″)	1.5 m (4′11″)	3.1 m (10′2″)
1.52 m (60″)	0.75 m (2′5″)	1.33 m (4′4″)	1.8 m (5′10″)	3.7 m (12′1″)
1.77 m (70″)	0.87 m (2′10″)	1.55 m (5′1″)	2.1 m (6′10″)	4.3 m (14′1″)
2.03 m (80″)	1.00 m (3′3″)	1.77 m (5′9″)	2.4 m (7′10″)	4.9 m (16′)
2.28 m (90″)	1.12 m (3′8″)	1.99 m (6′6″)	2.7 m (8′10″)	5.5 m (18′)
2.54 m (100″)	1.24 m (4′)	2.21 m (7′3″)	3.1 m (10′2″)	6.2 m (20′4″)
3.05 m (120″)	1.49 m (4′10″)	2.66 m (8′8″)	3.7 m (12′1″)	7.4 m (24′3″)
3.81 m (150″)	1.87 m (6′1″)	3.32 m (10′10″)	4.6 m (15′1″)	9.3 m (30′6″)
5.08 m (200″)	2.49 m (8′2″)	4.43 m (14′6″)	6.2 m (20′4″)	12.4 m (40′8″)

Projection range



convenience of operation

One remote control does it all!

The typical home cinema setup consists of several discrete components, such as a projector, a DVD player, a TV/tuner, and an amplifier. Combined into a single system, they work their magic. However, each video and audio component has its own remote control. Keeping track of which remote controls which component can be a headache. The PT-AE900 has an elegant solution to this problem. It comes with a learning remote control that can memorise the functions of multiple home cinema components. This single remote enables you to control up to eight components, both Panasonic products and products from other manufacturers. It has five presets: DVD, TV/tuner, VCR, Amp, plus the Projector. Just input the appropriate codes to identify the manufacturers and models of your components and their settings are selected automatically. You can program settings for an additional three components directly into the remote using the learn function. An LCD panel on the remote makes it easy to monitor operations. Now you can control your entire home cinema system with a single remote!

* Do not use the learning remote control to operate equipment other than home cinema components.
* The learning remote control may not be compatible with some components.

Numerous connection options including HDMI input and serial terminal

The PT-AE900 supports a full range of input sources, including DVD and video players, PCs, and game machines. An HDMI input provides compatibility with high-definition digital sources, while the component video input terminals deliver full-quality, detailed images from high-definition analog sources and high-end progressive scan DVD players. The PC IN terminal can be connected to a personal computer. Other terminals include composite video and S-Video. The PT-AE900 even has a serial terminal for connecting a touch panel controller or similar device.

Quiet operation and front exhaust

To minimize distractions a quiet fan cuts noise to a mere whisper, while light leakage is reduced by using twin blades. Because the exhaust fan is at the front of the projector, the PT-AE900 is suitable for even a narrow location.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

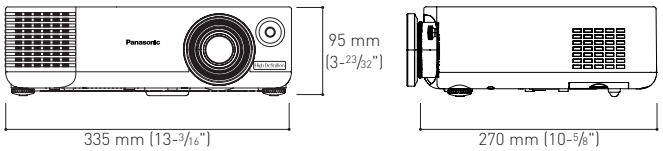
SPECIFICATIONS

Power supply:	100–240 V AC, 50/60 Hz
Power consumption:	180 W (Approx. 0.08 W in standby mode with fan stopped)
Optical system:	Dichroic mirror separation/prism synthesis system
LCD panel*1:	**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 (1 - 2.0) / Manual focus F 1.9 - 3.1, f 21.7 mm - 43.1 mm
Lamp*2:	130 W UHM™ lamp
Screen size:	1,016–7,620 mm (40–300 inches) diagonally, 16:9 aspect ratio
Colours:	Full colour (1,070,000,000 colours)
Colour system:	PAL, PAL-M, PAL-N, PAL 60, SECAM, NTSC, NTSC 4.43
Screen aspect ratio:	16:9 (4:3 compatible)
Brightness:	1,100 lumens*3
Centre-to-corner uniformity ratio:	85%
Contrast:	5,500:1*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 576i (625i): fH 15.63 kHz; fV 50 Hz 480p (525p): fH 31.5 kHz; fV 60 Hz 576p (625p): fH 31.25 kHz; fV 50 Hz 720p (750p): fH 37.5k Hz; 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:	Horizontal and Vertical
Keystone correction range:	Horizontal: approx. ±30°

Installation:	Ceiling/desk, front/rear (menu selection)
Language:	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Swedish, Danish, Norwegian, Polish, Czech, Hungarian, Portuguese, Thai
Terminals:	HDMI IN: 19-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), 75 Ω 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, 75 Ω PB/PR (CB/CR): 0.7 Vp-p, 75 Ω VIDEO IN: RCA pin x 1, 1.0 Vp-p, 75 Ω S-VIDEO IN: Mini DIN 4-pin x 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 Ω SCART IN: 21-pin x 1 SERIAL (out): Mini DIN 8-pin (female) x 1 (RS232C based)
Power cord length:	3 m
Cabinet material:	ABS/PC
Dimensions*4 (W x H x D):	335 x 95 x 270 mm (13-3/16″ x 3-23/32″ x 10-5/8″)
Weight:	3.6 kg (7.9 lbs.)
Operating environment:	Temperature: 0°–40°C (32°–104°F) Humidity: 20%–80% (no condensation)
Remote Control Unit:	Power supply: 3 V DC (UM-3 (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): 52 x 200 x 28.5 mm (2-1/20″ x 7-27/32″ x 1-1/8″) Weight: 170 g (6 oz.) (including batteries)
Supplied accessories:	Power cord, Wireless remote control unit, Batteries for remote control (UM-3 x 2)

*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 to provide the finest possible image. 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: In AI mode *4: Excluding protrusions

DIMENSIONS



OPTIONS

Ceiling mount bracket:	**ET-PKE300/ET-PKE700**
Serial conversion adaptor:	**ET-ADSER**
Replacement lamp unit:	**ET-LAE900**
Screen:	**ET-SRW90CT** 90″ (16:9), W x H: 2.0 x 1.8 m (6.6′ x 5.9′)

Ecology-Conscious Design

Panasonic works from every angle to minimize environmental impact in the product design, production and delivery processes, and in the performance of the product itself over its life cycle. The PT-AE900 Series reflects the following ecological considerations.

- Lead-free solder is used to mount components on the printed circuit boards.
- No halogenated flame retardants are used in the cabinet.
- No polystyrene foam is used in the packing materials.
- Lead-free glass is used for the lens.
- The packing case and operating manual are made from recycled paper.
- Lamp power switching further reduces power consumption.
- Standby power consumption is a mere 0.08 watts in the standby mode.

Panasonic ideas for life

Please contact Panasonic or your dealer for a demonstration.

JQA ISO 9001 JQA-1617
JAB EMS Accreditation RE 009
ISO 14001 JACO
UKAS ENVIRONMENTAL MANAGEMENT 051

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