

Panasonic
ideas for life

PT-AE700U

High Definition
Home Cinema Projector

Further advances

Bringing the ultimate big-screen experience to your home.



The latest advances in projector technology deliver a new level of film-like realism and impact.



The PT-AE700 is the most impressive home cinema projector ever from Panasonic. Compact enough to sit on a bookshelf, it is packed with advanced features designed to bring you a whole new level of home theater enjoyment. Dynamic contrast is now **2,000:1**, by far the best in its product class, so the picture is sharp and clear even in a well-lit room. In addition, the new integrated cinema quality circuitry includes a Dynamic Iris optical system that constantly adjusts the brightness and gamma characteristics in real time, so the picture is always optimal and transitions between scenes are more natural. Its innovative color correction system incorporates **Cinema Color Management technology** to ensure faithful color reproduction. This cinema-quality integrated circuitry brings you on-screen colors just as you would see them in a movie theater. Finally, the PT-AE700 comes with the advanced **Smooth Screen technology** that brought great acclaim to the AE500. It effectively eliminates the screen door effect that some LCD projectors are susceptible to, so the images you see on the screen are natural and lifelike.

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-AE700 Series reflects the following ecological considerations.



Enjoy big-screen excitement and Hollywood picture quality in your living room.

The PT-AE700 makes it possible to enjoy a home cinema projector in new ways. You can use it in a larger room and with a bigger screen than was practical with earlier LCD projector models. And its compact and lightweight design gives you plenty of flexibility. Joystick controlled **vertical and horizontal lens shift** adds further convenience. Unlike digital keystone correction, which can add distortion to the on-screen image, the new system is purely optical. It allows you to compensate for distortion when the projector is situated at an angle to the screen while maintaining superb clarity and picture fidelity. A newly developed **2x optical zoom lens** allows you to adjust the image size to match the setup layout and screen dimensions. With its combination of convenient features and unmatched performance, the PTAE700 brings the home cinema projector to a new level, and offers a substantially larger screen size than either a CRT, LCD or plasma display.

- Lead-free solder is used to mount components to the printed circuit boards.
- No halogenated flame retardants are used in the cabinet.
- No styrofoam 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.



New technology and features deliver film picture

New integrated cinema quality circuitry for enhanced expressiveness

Dynamic Iris and light-interlocked dynamic gamma deliver amazingly high contrast of 2000:1

A new Dynamic Iris optical system incorporates AI technology to control the light volume and gamma curve in real time. Gamma correction is possible in every single scene. In conjunction with lamp control, the world's first Iris with scene-tracking capability delivers a dynamic contrast of 2,000:1, so the picture is sharp and clear even in a well-lit room. Superb brightness is achieved at the same time, broadening the dynamic range. The dynamic gamma is interlocked with the light source, so scene changes are smooth and natural, and contribute to sufficient brightness in dark scenes. The AI can detect as many as 3,000,000,000 combinations of scenes by utilizing histogram analysis. An amazing response speed is achieved by interlocking it with the light source rather than the lens.

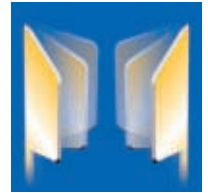
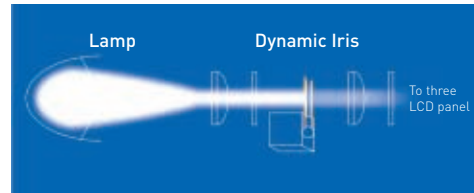
Precise color portrayal with deeper blacks



Without lamp power control or dynamic gamma correction blacks and other colors appear lifeless.

With lamp power control but without dynamic gamma correction, blacks and other colors are lackluster and drab. Blacks and other dark portions are not washed out, however whites and bright portions are dim and dull.

With Dynamic iris and dynamic gamma correction, the fine-tuned image sustains the brilliance of bright colors resulting in a truer image over a wider livelier range.



The Iris opens and closes actual time according to image signal.

Cinema Color Management technology

The innovative color correction system incorporates Cinema Color Management (CCM) technology, enabling free control of colors. Until the development of CCM, it has been difficult to reflect the colorist's intentions, because correcting one color affected certain others. With CCM technology, individual correction of approximately 1,070,000,000 colors without affecting other colors is possible. Color control usually includes control of contrast, but CCM technology goes even further and controls brightness too. CCM is a true breakthrough and moves color correction closer to the process used for motion pictures.

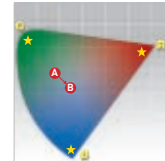
Adjust pin-pointed colors without affecting others



3-axis color correction



CCM color correction



Conventional 3-axis color correction
Adjusting color A to B changes the hues of the surrounding colors.



AE700: 1,070,000,000 (approx.) color correction
Adjusting color A to B has no effect on the surrounding colors.



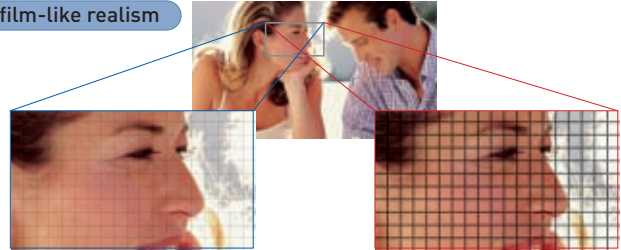
quality with lifelike images

Extremely detailed, lifelike images thanks to advanced technology and functionality

Smooth Screen technology

Smooth Screen technology effectively reduces 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-AE700 is remarkably smooth and film-like, and at the same time amazingly sharp and detailed.

For film-like realism



PT-AE700: Smoothly textured images, as in a movie theatre

Conventional: “chicken wire” effect

User equalizing function

By making use of our CCM technology, you can decide precisely how the PT-AE700 presents your images. With 2,401 picture quality settings to choose from, contrast, brightness and gamma level are widely adjustable across 7 picture modes. Furthermore, up to three sets of adjustments can be stored in memory, enabling users to bring back the exact image settings they would like at any time. Whether you are watching a movie, a live music performance or a sports event, the PT-AE700 will project the scene exactly how you want to see it.

You can adjust the colors while viewing the projected image.

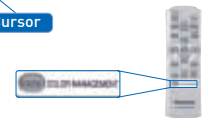


Color before adjustment

Adjusted color

Cursor

A color correction of 8 points can be made to the image source by a simple remote control operation.



Cinema 1	For watching movies. The projected image will be refined. This mode was especially tuned to the look of Hollywood movies.
Cinema 2	For watching movies. The projected image will be clear and have high contrast.
Cinema 3	For watching movies. The projected image will be deep and rich.
Video	For watching video sources such as music or sports programs.
Normal	For watching various image sources.
Dynamic	For watching in a brightly lit room.
Natural	To reproduce the color of the image faithfully from the image source.

Other features

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 colors to over 1 billion (with 1,024 gradations).

New Dynamic Sharpness Control

The new 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.

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 AE700 to convert signals recorded at a higher quality than conventional models.

Wide, high-definition LCD panel for sharp, detailed images

A wide 1280x720 pixels high-definition LCD panel generates the sharp images of PT-AE700. Its three-layer construction realizes 2.76 million pixels, giving a beautifully detailed picture of exceptional fidelity—especially from superior video sources such as high definition digital satellite/terrestrial broadcasts.

New UMP Lamp delivers 1,000 lumens

The new UHM lamp delivers a superb brightness of 1,000 lumens. Enjoy beautiful pictures that are not affected by ambient lighting.

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



In the movie world, each creator has a personal definition of the perfect image. During development of the PT-AE700, to realize an image on screens at home true to the intentions of all creators, Panasonic consulted with top Hollywood colorist Mr. David Bernstein. Panasonic developed and equipped the PT-AE700 with new, unique integrated cinema quality circuitry and core image optimizers to meet the strict demands of colorists. We incorporated into the PT-AE700 the artistic creativity of David Bernstein, who has an unrivaled sense of picture-quality color coordination. Thereby was born the PT-AE700, an LCD projector with a stunning picture reproduction that is truly worthy of the accolade “Hollywood picture quality.”

David Bernstein is a top Hollywood colorist, referred to as a “Golden Eye,” whose expertise is evident in the telecine* process for numerous successful films. David Bernstein is featured courtesy of Ascent Media.
* Telecine: The process of turning a film into a video.

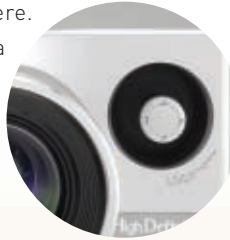
Advanced features enable projection of a stunning

Vertical and horizontal lens shift and 2x optical zoom lens for easy set up

Vertical and horizontal lens shift

Vertical and horizontal lens shift enables screen position adjustment without moving the projector. A simple joystick operation moves the lens within the projector housing allowing the projector to be positioned anywhere.

Suspended from the ceiling or placed on a shelf or table, there will be no deterioration of image because the lens is physically repositioned. This with lens shift provides total freedom of placement so the AE700 fits perfectly into your home.



2x optical zoom lens

A newly developed 2x optical zoom lens offers a wide range of throw distances to provide a generous variety of suitable projector locations. It can project a 100-inch picture from as little a distance as 3 meters to as far as an amazing 6 meters. Whether the projector is situated on a table in front of viewers, mounted on the ceiling above them or placed on a bookshelf behind them, it produces the same dynamic large-screen picture. At any distance from the screen in any type of room, the 2x optical zoom lens offers all viewers alike the same stunning images.



A variety of terminals including HDMI input

The PT-AE700 works well with DVD or video players, PCs, game machines, and other equipment. It has an HDMI input that is compatible with all high-definition digital sources. The component video input terminals allow you to enjoy all the quality of rich images from high-end progressive scan DVD players. The PC IN terminal can be used to connect game machines or PCs. Other terminals include composite video, S-Video and many more. The PT-AE700 also has a trigger terminal, so switching the screen on and off may be simply achieved by merely powering the projector on and off.

Quiet operation of 26 dB* and front exhaust

For full enjoyment a new quiet fan cuts distracting noise to a whispering 26 dB*. Light leakage is reduced by using twin blades. As the exhaust fan is on its front, the projector only needs a narrow site.

* In low mode



picture in any type of room and setup situation

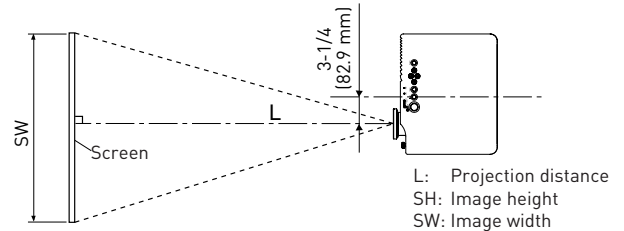
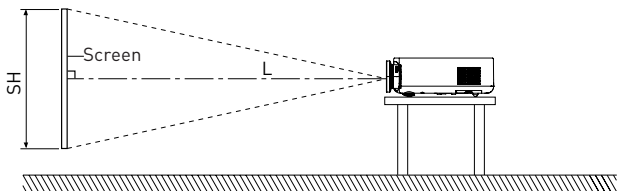
SPECIFICATIONS

Power supply: 100-240 V AC, 50/60 Hz
Power consumption: 180 W (Approx. 3 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*3: 130 W UHM™ lamp
Screen size: 1,016-7,620 mm [40-300 inches] diagonally, 16:9 aspect ratio
Colors: Full color [16,777,216 colors]
Color system: PAL, PAL-M, PAL-N, PAL 60, SECAM, NTSC, NTSC 4.43
Screen aspect ratio: 16:9 [4:3 compatible]
Brightness: 1,000 lumens
Center-to-corner uniformity ratio: 85%
Contrast: 2,000:1*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 45 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: Horizontal and Vertical*4
Keystone correction range: Horizontal: approx. ±30°

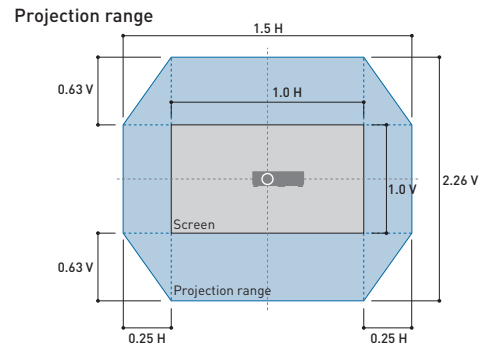
Installation: Ceiling/desk, front/rear (menu selection)
Language: English, French, German, Spanish, Italian, Chinese, Japanese, Korean, Russian
Terminals: HDMI IN: 19-pin x 1
 PC (RGB) IN: D-sub HD 15-pin (female) x 1
 R, G, B: 0.7 Vp-p (1.0 Vp-p for Sync on G), 75Ω
 HD/VD/SYNC: TTL, high impedance (positive/negative 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
Power cord length: 3 m
Cabinet material: ABS/PC
Dimensions*5 (W x H x D): 13-3/16" x 3-23/32" x 10-5/8"
 (335 x 95 x 270 mm)
Weight: 7.9 lbs. [3.6 kg]
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 1-11/16" x 5-5/16" x 7/8"
 (W x H x D): [43 x 135 x 22 mm]
 Weight: 2.5 oz. [70 g] (including batteries)
Supplied accessories: Power cord, Wireless remote control unit, Batteries for remote control (UM-4 x 2), AV cable [9.9' / 3 m]

*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 All mode *4: Refer to the Projection range drawing below for details. *5: Excluding protrusion

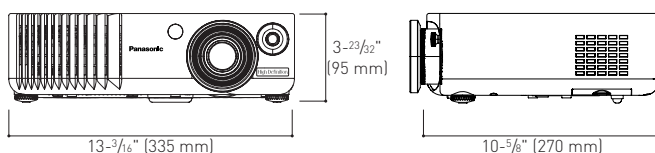
IMAGE SIZE / PROJECTION DISTANCE



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")



DIMENSIONS



OPTIONS

- Ceiling mount bracket: **ET-PKE700**
- Replacement lamp unit: **ET-LAE700**
- Screen: **ET-SRW90CT**
90" [16:9], W x H: 6.6' x 5.9' [2.0 x 1.8 m]

Panasonic ideas for life

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