Panasonic
ideas for life

PT-AR100
Full High-Definition Home Cinema Projector

More Excitement with 2,800 lm of Brightness
Bring the Action Home

The PT-AR100 lets friends and family enjoy Full-HD large-screen entertainment—from movies and sports to video games. Panasonic’s advanced technologies bring crisp images even in daytime brightness, and improve color reproduction accuracy in movies, to deliver images with a refined Hollywood tuning technology. Whether it is used for a house party filled with friends or for family movie night, the PT-AR100 will keep you and your guests engaged in the story and action through its stunning image quality.

Large-Screen Entertainment for the Group

2,800-lm Brightness from Newly Developed 280-W Red-Rich Lamp
The PT-AR100 projector produces bright, sharp images by employing a new, high-power 280-W Red-Rich Lamp and optical unit that combine to generate 2,800 lm of brightness for comfortable viewing in various lighting conditions.

Light Harmonizer 3 Produces Quality Pictures in Various Lightings
Together with 2,800 lm of brightness, Panasonic’s Light Harmonizer 3 technology assists the versatile use of the projector by automatically adjusting the picture quality of the image to match the living room or theater room conditions. This is made possible by utilizing built-in ambient light and color sensors that adjust the white balance, gamma curve, and sharpness settings to maintain bright, crisp pictures that match the viewing environment.

Picture Modes for Different Occasions
The PT-AR100 features seven picture modes for various viewing situations, including modes that are ideal for sports, games and movies: Normal, Dynamic, Game, Sports, Rec. 709, Cinema 1 and Vivid Cinema.

- **Cinema 1 Mode Offers Hollywood Picture Quality**
  Movies can be enjoyed in Cinema 1 mode that has been tuned carefully to faithfully express the director’s artistic intent. Panasonic has continued to work side by side with Hollywood experts to deliver this ideal image reproduction for viewing movies.

- **Game Mode for Stress-Free Playing**
  This mode improves signal processing for better response, allowing you to play games with minimal stress. It also reveals gradation in saturated areas to show details that are otherwise lost in very dark areas.

- **Sports Mode with Motion Effect for Sharp Action Scenes**
  In Sports mode, together with the Motion Effect feature, the PT-AR100 detects and extenuates detail on moving objects, resulting in intensified action with clearer, more highlighted players.
Dynamic Iris Pro Delivers High 50,000:1 Contrast Ratio for Deep Blacks
This intelligent iris system works by analyzing the brightness level of each image using a histogram, then adjusting the lamp power, iris, and gamma curve accordingly to create the ideal image. The adjustments are made virtually frame by frame. This achieves an astounding contrast ratio of 50,000:1, providing a wide dynamic range with swift smoothness for added beauty in both dark and bright scenes.

Pure Color Filter Pro for Rich, Vibrant Colors
The 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 cover a range that extends from the HDTV standard (Rec. 709 model)*2 to the color gamut used in digital cinema.*3 This gives images the deep, rich coloring that distinguishes movie images.

Detail Clarity Processor 3 Gives Natural Clarity to Even the Finest Details
This digital image processing circuit brings greater clarity and sharpness to details, by reproducing fine nuances that were lost due to image compression. After two dimensional analysis of the video signal’s frequency in each scene, the new circuit optimizes the sharpness of each image portion based on the extracted information. The resulting images have a more natural, lifelike expression than those of previous image-processing methods. The detection of super-high-frequency image components also enables more faithful reproduction of highly detailed information, such as the film grain in movies. The effect can be adjusted in eight steps from 0 to +7.

Motion Effect Adds Smoothness and Sharpness to Fast-Moving Scenes
This digital image processing circuit brings greater clarity and sharpness to details, even in fast-moving scenes. The resulting images have a more natural, lifelike expression.

Waveform Monitor for Precise Calibration
When the output level of the source device fluctuates due to the performance of the device or its cable connections, the original black and white levels of the image content cannot be reproduced. With the PT-AR100, you can view the waveforms on the screen and adjust the settings either automatically or manually as you prefer.

Split Adjust Mode for Easy Picture Adjustment
You can freeze any scene you wish, and then make adjustments while easily comparing the original image and the adjusted image side-by-side.

Advanced Gamma Adjustment Function
The gamma curve can be flexibly controlled, allowing precise calibration according to the signal source and environment. Brightness (Y), R, G and B can each be adjusted at any of nine points. Adjustment point positions can be shifted both horizontally and vertically to bring out the desired gradation level.

Cinema Color Management Premium Enables Flexible Color Control
This color correction system enables free color control in two different modes. The Point Color Correction mode lets you pick a point in the image and adjust that color without affecting the neighboring colors. The Six Color Correction mode enables independent adjustment of red, green, blue, cyan, magenta and yellow.

Installation Flexibility and Ease of Use

2x Optical Zoom Lens and Wide Lens Shift Range
The 2x optical zoom lens provides a wide throw range, and the image can be shifted ±65% vertically and ±26% horizontally. This outstanding level of setup flexibility lets you enjoy large-screen viewing in different-sized rooms. Position it on a table in front of you, suspend it from the ceiling, or place it on a bookshelf behind you.

Abundant Connection Terminals
- **HDMI™ with x.v.Color™ and Deep Color**
The PT-AR100 has two HDMI input terminals for digital transmission without image degradation. The HDMI input terminals also support Deep Color and the x.v.Color color space of the 1.3 standard. Deep Color provides 10-bit (over 1.07 billion) and 12-bit (over 68.7 billion) color depths for smooth gradation between colors, while x.v.Color compliance reproduces natural, lifelike images.*4
- **Programmable 12V Trigger for Automated Theater Setup**
Two 12V triggers are provided. Since the input and output can be set independently (menu selectable), they can link flexibly with powered screens, room lights and powered curtains.

VIERA Link for Easy Operation
The PT-AR100 supports VIERA Link. If your home theater system contains VIERA Link-ready equipment, projection can be started by using only the remote control unit of the PT-AR100, regardless of whether the source is a Blu-ray Disc or a TV program stored on an HD recorder. This eliminates the need for hassling with several remote controls.*5

Function Button for Instant Recall
A frequently used function can be assigned to the Function button located on the remote for instant recall.

Eco Management Functions
A number of functions are provided to reduce power consumption. They adjust the brightness according to ambient light conditions, and reduce the lamp power when there is no signal input or the projector is in AV Mute mode. You can easily set the Eco Management functions according to operating conditions by using the ECO button on the remote control.

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*1 Parameters for adjusting the output brightness gradation level according to the input signal.
*2 A setting that supports the 6,500K color temperature recommended in the HDTV standard (ITU-R BT.709).
*3 Specifications put forth by the Society of Motion Picture and Television Engineers (SMPTE) DC28 Digital Cinema committees.
*4 Effective in Cinema 1 image mode.
*5 Cannot be used simultaneously with a TV that supports VIERA Link. Some operations may not be available depending on the equipment. In this case, use its own remote control to operate the equipment.
**Energy-Saving Intelligent Lamp Power Control**

Advanced Panasonic digital circuitry intelligently determines the necessary power output of the lamp depending on the content being displayed by analyzing more than 3 billion different image patterns. This advanced analysis process reduces the main power consumption by as much as 10 percent when the Dynamic Iris Pro function is operating, thus saving energy.

**Up to 3,000-Hour Lamp Replacement Cycle** and Simple Maintenance

Panasonic’s proprietary lamp drive system helps maintain lamp performance, resulting in a up to 3,000-hour lamp replacement cycle. For easy maintenance, you can replace the dust filter from the side and the lamp from the top of the projector. The filter and lamp can be easily replaced after you have turned the PT-AR100 off and the lamp is cooled down.

**Maintenance**

- Normal/Eco lamp power selection.
- On-screen input guidance.
- User-friendly ergonomic remote control.
- Screen Area Memory.
- Up to sixteen sets of PICTURE adjustment settings can be stored in the projector's memory with custom names that make them easy to remember.
- Progressive cinema scan (3/2 pulldown) and HD IP.
- Scene-adaptive MPEG noise reduction effectively blocks regular noise.
- 16-bit (full 12-bit) gamma correction for natural gradation.
- 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.

**Other Features**

- 16-bit (full 12-bit) gamma correction for natural gradation.
- 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-AR100's native resolution.
- 24p compatible.
- Progressive cinema scan (3/2 pulldown) and HD IP.
- Up to sixteen sets of PICTURE adjustment settings can be stored in memory with custom names that make them easy to remember.
- User equalizing function lets you adjust the high, mid and low gamma levels.
- Screen Area Memory.
- User-friendly ergonomic remote control.
- Built-in test pattern.
- On-screen input guidance.
- Auto input search.
- Quiet operation: 29 dB (lamp power: Eco).
- Normal/Eco lamp power selection.

**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 during its life cycle. The PT-AR100 reflects the following ecological considerations.

- No halogenated flame retardants are used in the cabinet.
- Non-coated cabinet for easy recycling.
- Lead-free glass for the lens.
- Standby power consumption of only 0.08 W.
- ECO button on the remote control.
- A sleep-timer that reduces wasteful power consumption.
- RoHS compliant.
- Environmentally responsible production (ISO 14001:2004— the Environmental Management System certification for the entire company). Each Panasonic projector is produced by a vertically integrated production process, which extends from R&D to manufacturing.

**Specifications**

- **Power supply**
  - 100–240 V AC, 50/60 Hz
  - 350 W (0.08 W in standby mode)
- **Lamp**
  - 2,800 lm*10
  - 470 mm × 151 mm × 380 mm*15
  - Approx. 8 kg (17.6 lbs)
- **Lens**
  - 2,073,600 (1,920 × 1,080) × 3, total of 6,220,800 pixels
- **Projection size (diagonal)**
  - 1.02 m × 1.80 m
  - Brightness*9
  - 15.63 kHz, fV: 50 Hz [NTSC/NTSC4.43/PAL-PAL/SECAM]
  - Vertical: ±65%, horizontal: ±26%
  - Vertical: approx. ±30°
- **Contrast ratio*9**
  - 10,000:1 (full on/full off)
  - 0.08 W (in standby mode)
  - 21.5–43.0 mm
  - D-sub HD 15-pin (female) × 1 (RGB/YPbPr/YCbCr × 1)
  - RCA pin × 3 (YPbPr/YCbCr/YCr/Pr)
  - RCA pin × 1
  - MINI DIN 4-pin × 1
  - D-sub 9-pin × 1 for external control
  - Approx. 6.5 kg (14.3 lbs)
- **Projection distance**
  - 2,073,600 (1,920 × 1,080) × 3, total of 6,220,800 pixels
- **Supplied accessories**
  - Batteries for remote control (AA/R6 type × 2)
  - Power cord (× 1) (× 2 for PT-AR100EAE)
  - Ceiling mount (× 1)
  - Wireless remote control unit (× 1)
  - Optional accessories
- **Driving method**
  - Active matrix

See the [Panasonic projectors website](http://www.panasonic.com/panasonicprojector) for more information about Panasonic projectors.