

Panasonic
ideas for life

PT-L500U
Micro-Portable High Definition LCD Projector

Spectacular, Cinema-Like Images for home theater and business presentations



- High-definition wide LCD panel:
1,280 x 720 x 3
- 1300:1 contrast ratio*
- 850 lumens brightness

- Integrated cinema quality circuitry
 - 10-bit full digital processing
 - 10-bit gamma correction
 - Projector AI
 - Dynamic sharpness control
 - Progressive cinema scan

- New Smooth Screen technology
- 2058-pattern user equalizing
- H/V digital keystone correction
- DVI-D input with HDCP
- Trigger terminal
- Quiet operation: 27 dB

* AI mode

Breathtaking Picture Quality—

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, including the Panasonic Hollywood Laboratory in Hollywood, California, has led to breakthroughs that have dramatically improved picture quality. The new PT-L500U incorporates Panasonic advances such as a high-definition wide LCD panel, integrated cinema quality 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 theater. And a Hollywood colorist took part in the development process to ensure a remarkable level of color fidelity. Present your company's corporate video and enjoy your favorite movies on the large screen. Experience a high level of immediacy and excitement when watching sporting events. The PT-L500U packs everything you could want into a compact, sleek high-definition home cinema projector.

High-definition wide LCD panel for sharp, detailed images

The secret behind the incredibly sharp, detailed picture of the PT-L500U 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 the high-definition LCD panels delivers 850 lumens of brightness and realizes a contrast ratio of up to 1,300:1, ensuring that the PT-L500U delivers an incredible level of performance. This high contrast—brilliant images with deep, vivid blacks—gives the picture a startling realism and impact.

Integrated cinema quality circuitry for enhanced expressiveness

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

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

PT-L500U



Ideal picture reproduction with the correction of the PT-L500U

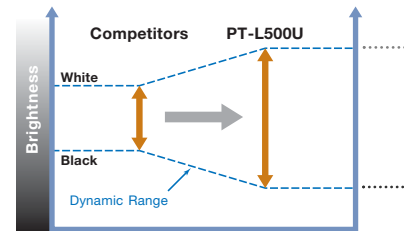
Competitors



Picture reproduction with large-stepped brights, and blurred darks

Projector AI

The projector AI system is based on technology employed in high-end digital projectors used in movie theaters. 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 up to 1,300:1.



Bright Scenes

Competitors



PT-L500U



Dark Scenes

Competitors



PT-L500U



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.

Progressive Cinema Scan (3/2 Pulldown)

Progressive Cinema Scan (3/2 Pulldown) interlace/progressive conversion technology automati-

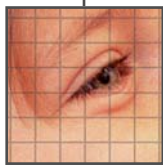


from a Sleek, Compact Unit

cally detects when the input signal derives from filmed material and selects the optimum progressive processing method to assure faithful reproduction of the original image.

New Smooth Screen technology for film-like realism

The PT-L500U 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 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-L500U is remarkably smooth and film-like, and at the same time amazingly sharp and detailed.



PT-L500U



Conventional

User equalizing function

You can decide precisely how the PT-L500U presents your images. With 2058 picture quality settings to choose from, contrast, brightness and

6 Picture Mode

7-Step Gamma Correction for Bright Scene

7-Step Gamma Correction for Medium Brightness

7-Step Gamma Correction for Dark Scene

A Total of 2058 Equalizing Settings

gamma level are widely adjustable across 6 picture modes. Whether you are watching a movie, a live speech or a sports event, the PT-L500U will project the scene exactly how you want to see it.

Other image enhancements

- Originally developed optical system: Covers an unprecedented wide color reproduction area
- New noise reduction: Effectively 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 reducing color bleeding

Digital keystone correction

The PT-L500U 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 images with minimal distortion when projecting from an angle of up to 30 degrees in any direction (up, down, left or right).

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

Use the PT-L500U with a DVD or S-VHS 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-L500U 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" W x 10-9/16" D) and weighing less than 2.9 kg (6.4 lbs.), the PT-L500U 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)

High picture quality with the artistic input of a top Hollywood colorist



David Bernstein
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, such as "Titanic", "Moulin Rouge" and "X-men".

* Telecine: The process of turning a film into a video.

In the movie world, each creator has a personal definition of the perfect image. During development of the PT-L500U, to realize an image on screens at home true to the intentions of all creators, Panasonic consulted with top Hollywood colorist David Bernstein. First to be developed and featured on the PT-L500U are Panasonic's unique Cinema Works and Smooth Screen technology, the core image optimizers to meet the detailed and strict demands of specialists. Next we incorporated into the PT-L500U the artistic creativity of Bernstein, who has an unrivaled sense of picture-quality color coordination. Thus the PT-L500U was born, an LCD projector with the stunning picture reproduction that is truly worthy of the accolade "Hollywood picture quality."

Rear View



Specifications

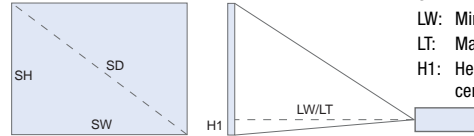
Power Supply	100–240 V AC, 50/60 Hz
Power Consumption	180 W (1 W in standby mode with fan stopped)
Optical System	Dichroic mirror separation/prism synthesis system
LCD Panel	0.7" (diagonal) (16:9 aspect ratio)
Panel Size	Transparent LCD panel (x 3, R/G/B)
Display Method	Active matrix
Drive Method	921,600 (1280 x 720) x 3, total of 2,764,800 pixels
Pixels	Stripe
Pixel Configuration	Manual zoom/focus lens (1:1–1:1.2), F 1.9–2.2, f 22.0–26.2 mm 130 W UHM™ lamp
Lens	1,016–5,080 mm (40–200 inches) diagonally
Lamp	130 W UHM™ lamp
Image Size (Diagonal)	16:9 (4:3 compatible)
Screen Aspect Ratio	Full color (16,777,216 colors)
Colors	NTSC, NTSC 4.43, PAL, PAL-M, PAL-N, PAL 60, SECAM
Color System	850 lumens*1
Brightness	90%
Uniformity	1300:1*2 (full on/full off)
Contrast Ratio	RGB
Resolution	1280 x 720 pixels (1920 x 1080 pixels with compression)
Scanning Frequency	RGB
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 fh 15.75 kHz; fv 60 Hz (NTSC, NTSC 4.43, PAL-M, PAL 60) fh 15.625 kHz; fv 50 Hz (PAL, SECAM, PAL-N) 17:1 (fixed)
S-Video/Video	Vertical: approx. ±30°, horizontal: approx. ±30° Ceiling/desk, front/rear (menu selection)
Optical Axis Shift	DVI-D 24-pin x 1
Keystone Correction Range	D-sub HD 15-pin (female) x 1
Installation	0.7 Vp-p (1.0 Vp-p for Sync on G), 75 ohms
Terminals	TTL, high impedance (positive/negative polarity)
DVI-D IN	RCA pin (Y, Pb/Cb, Pr/Cr) x 1, 1.0 p-p, 75Ω
PC (RGB) IN	0.7 Vp-p, 75Ω
R, G, B	RCA pin x 1, 1.0 Vp-p, 75 ohms
HD/VD/SYNC	Mini DIN 4-pin x 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms
COMPONENT IN	M3 jack, (stereo mini)
Y	When the power is turned on during projection: 12 V
Pb/Pr (Cb/Cr)	When the power is turned off: 0 V
VIDEO IN	3 m
S-VIDEO IN	ABS/PC
TRIGGER (out)	280 x 85 x 278.5 mm (11" x 3-11/32" x 10-9/16")
Power Cord Length	2.9 kg (6.4 lbs.)
Cabinet Material	Operating Temperature
Dimensions (W x H x D)	0°–40°C (32°–104°F)
Weight	Operating Humidity
Operating Temperature	20%–80% (no condensation)
Operating Humidity	
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
Optional Accessories	Replacement lamp unit: ET-LAE500 Ceiling mount bracket: ET-PKE300

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.

*1: 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.

*2: In AI mode

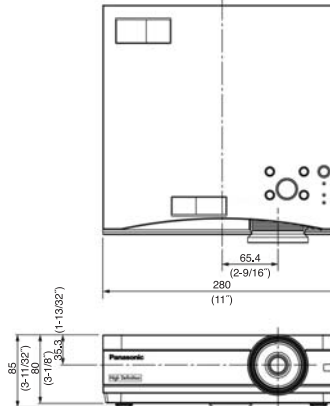
Projection Distance



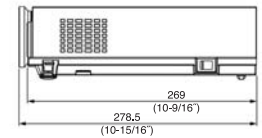
SD: Diagonal image size
SH: Height of projected image
SW: Width of Projected image
LW: Minimum projection distance
LT: Maximum projection distance
H1: Height from the edge of screen to center of lens

Aspect ratio	Diagonal image size	Distance to screen	
		min.	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'
4:3	200" / 5.1 m / 16.7'	6.2 m / 20.3'	7.4 m / 24.3'
	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

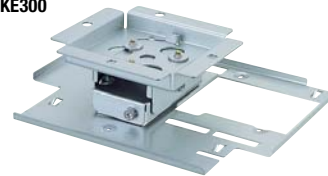


Unit: mm / inch



Optional Accessories

Optional ceiling mount bracket:
ET-PKE300



Replacement lamp unit:
ET-LAE500



Panasonic®

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Please contact Panasonic or your dealer for a demonstration.



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