PRELIMINARY

Panasonic

ideas for life

PT-AX200

High-Definition Home Cinema Projector

Home Theater Made Easy to Meet Your Lifestyle

A Bigger Picture Brings Images to Life!

The PT-AX200 is ideal for watching sports events or playing video games in daytime conditions and surely for viewing movies in a dark room. Powerful 2,000-lumen brightness and new Light Harmonizer 2 technology make it easy for people to enjoy vibrant, dynamic images even if they don't have a special theater room. Panasonic's advanced technologies improve color reproduction accuracy in movies, to deliver images with a refined "Hollywood picture quality," making this projector ideal as the heart of a home cinema system.

Play video games by projecting the image onto a big screen.

Enjoy sports programs, cartoons and TV shows with family.

Watch your favorite movies in high picture quality.

PT-**AX200**

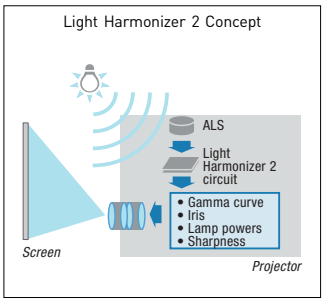
High-Definition
Home Cinema Projector

2,000-Lumen Brightness—Brightest in its Class*[1]

Panasonic developed an extremely powerful lamp to realize an outstanding brightness of 2,000 lumens, brightest in its class.*[1]

Light Harmonizer 2 Brings Crisp Picture in Various Lightings

Together with the 2,000-lumens brightness, Panasonic's Light Harmonizer 2 technology produces vivid and easy to see images even in the kind of bright lighting that makes images from other projectors look whitish, faded or lacking in detail. In addition, it has a built-in ambient light sensor (ALS) that measures the amount of light in your room to optimize the picture quality at different lighting conditions.*[2] Light Harmonizer 2 circuit not only adjusts the gamma curve, but also controls iris setting, lamp power, and picture sharpness to maintain easy, comfortable viewing at all times.



PT-AX200: Light Harmonizer 2

A 1,000-lumen class projector

Game Mode for Stress-Free Playing

The PT-AX200 features a "Game" mode that improves signal processing for better response, allowing you to play games with minimal stress. It also reveals gradation in saturated areas to show detail that are otherwise lost in very dark areas.

The Game mode reveals more details in dark areas.

Competitors

Cinema 1 Mode Offers Hollywood Picture Quality

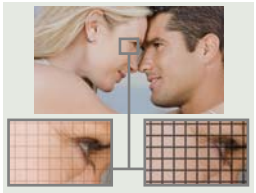
Panasonic worked with experts in Hollywood—the movie capital of the world—to create the ideal image reproduction for viewing movies. This allows the PT-AX200 to deliver true Hollywood picture quality, with images that faithfully express the director's artistic intent.

Pure Color Filter

The Pure Color Filter was born from Panasonic's pursuit of optical technology that delivers true Hollywood picture quality. The light spectrum is adjusted to produce a level of light that maximizes the performance of the LCD panels, which expands the color range and produces truer blacks.

Smooth Screen Technology

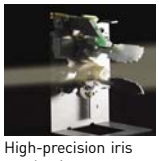
Developed exclusively by Panasonic, this effectively reduces the black lines between pixels that mar picture quality. The high-definition picture of the PT-AX200 is remarkably smooth and film-like, while remaining amazingly sharp and detailed.



PT-AX200 Competitors

Dynamic Iris

Dynamic Iris has been refined to provide deeper, richer blacks needed for true image reproduction with stunning smoothness. This technology adjusts the lamp power, iris, and gamma curve according to data obtained from frame-by-frame histogram analysis of the image brightness level.



High-precision iris mechanism

Advanced Dynamic Sharpness Control

The new Advanced Dynamic Sharpness Control determines image areas that need to be sharpened at varying degrees by examining small changes in brightness levels within the image. This greatly reduces noise amplification and delivers clear and natural looking images.

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*1: For LCD projectors with native resolution of 720p, as of August 1, 2007.
*2: The Light Harmonizer 2 is set to Auto at the factory. There is also a Manual mode if you want to fine-tune the picture yourself.

2x Optical Zoom Lens

The 2x optical zoom lens provides a wide throw range that gives you outstanding setup flexibility, letting 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.

Vertical and Horizontal Lens Shift

Adjust the positioning of the picture vertically and horizontally by simply operating a joystick. The shift range is 63% of the screen height for vertical adjustment, and 25% of the screen width for horizontal adjustment.

Two HDMI Inputs

Two HDMI inputs let you connect two devices, such as a BD player and game console, at the same time, using HDMI cables. This eliminates the need for an HDMI switcher.

Simple, Convenient Remote Control

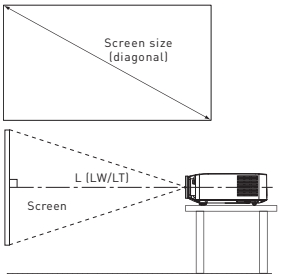
The remote control is intuitively laid out for ease of use. The picture mode select buttons are divided into "Theater Room" and "Living Room" to separate the modes into those recommended for dark room viewing and bright room viewing respectively.

Other Features

• Seven picture modes include game, vivid cinema, normal, dynamic, cinema 1, and cinema 2. • User equalizing function lets you adjust the high, mid and low gamma levels. • Up to eight sets of adjustment settings can be stored in memory with custom names that make them easy to remember. • Scene-adaptive resizing LSI improves quality when resizing 480p images or those from other sources with resolution lower than the PT-AX200's native resolution. • Cinema Color Management allows individual color correction • Scene-adaptive MPEG noise reduction effectively blocks regular noise and minimizes mosquito noise. • 24p compatible • Progressive cinema scan (3/2 pulldown) and HD IP • Quiet operation (25 dB) and front exhaust • On-screen input guidance • Auto input search • Off-timer • Normal/economy lamp power selection • Built-in test pattern

Image size/projection distance

Projection size (16:9)	Projection distance (L)	
Diagonal length	Min. distance (LW)	Max. distance (LT)
1.01 m / 40″	1.2 m / 3´11″	2.4 m / 7´10″
1.52 m / 60″	1.8 m / 5´10″	3.7 m / 12´1″
2.03 m / 80″	2.4 m / 7´10″	4.9 m / 16´
2.54 m / 100″	3.1 m / 10´2″	6.2 m / 20´4″
3.05 m / 120″	3.7 m / 12´1″	7.4 m / 24´3″
3.81 m / 150″	4.6 m / 15´1″	9.3 m / 30´6″
5.08 m / 200″	6.2 m / 20´4″	12.4 m / 40´8″



PT-AX200 Specifications

Power supply	100–240 V AC, 50/60 Hz
Power consumption	290 W (Approx. 0.08 W in standby mode with fan stopped)
LCD panel*1	
Panel size	0.7″ (17.78 mm) diagonally
Aspect ratio	16:9 aspect ratio
Display method	Transparent LCD panel (x 3, R/G/B)
Pixels	921,600 (1280 x 720) x 3, total of 2,764,800 pixels
Lens	Manual zoom (2x)/Manual focus, F 1.9 - 3.1, f 21.7 mm - 43.1 mm
Lamp*2	220 W UHM™ lamp
Brightness*3	2,000 lumens*4
Contrast*3	6,000:1*4 (full on/full off)
Resolution	RGB: 1280 x 720 pixels (1920 x 1080 pixels with compression)
YPBPR signal compatibility	480i (525i), 480p (525p), 576i (625i), 576p (625p), 720 (750)/50p, 720 (750)/60p, 1,080 (1,125)/24p, 1,080 (1,125)/50i, 1,080 (1,125)/50p, 1,080 (1,125)/60i, 1,080 (1,125)/60p
Color system	NTSC, NTSC 4.43, PAL, PAL-M, PAL-N, PAL 60, SECAM
Optical axis shift*5	Horizontal ±25% and vertical ±63%
Keystone correction range	Vertical: approx. ±30°
Terminals	
S-VIDEO IN	Mini DIN 4-pin x 1
VIDEO IN	RCA pin x 1
COMPUTER IN	D-sub HD 15-pin (female) x 1
COMPONENT IN	RCA pin (Y, PB/CB, PR/CR) x 1
HDMI IN	HDMI connector x 2
SERIAL	Mini DIN 8-pin x 1 (RS-232C based)
Dimensions*6 **(W x H x D)**	395 x 112 x 300 mm (15-17/32″ x 4-13/32″ x 11-25/32″)
Weight	4.9 kg (10.8 lbs.)
Operating environment	Temperature: 0°–40°C (32°–104°F), Humidity: 20%–80% (no condensation)
Supplied accessories	Power cord, Wireless remote control unit, Batteries for remote control (UM-3 x 2)
Optional accessories	
ET-LAX100	Replacement lamp unit
ET-PKX200	Ceiling mount bracket
ET-ADSER	Serial adapter (DIN 8-pin/D-sub 9-pin)

Ecology-Conscious Design

Panasonic strives to minimize environmental impact caused by its products through careful consideration of design, production, delivery, process and product life cycle. The PT-AX200 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.

*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 designed to provide one of the finest possible images. 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: Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*4: In AI mode, with dynamic iris on
*5: Shift range is limited during simultaneous horizontal and vertical shifting.
*6: Excluding protrusions

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Projector Global Web Site
http://panasonic.co.jp/pavc/global/projector

Please contact Panasonic or your dealer for a demonstration.

JQA-1617
051

PT-AX200G-07AUG10K Printed in Japan.

Panasonic

ideas for life

PT-DW6300US
PT-DW6300ULS
PT-D6000US
PT-D6000ULS

DLP™ Based Projector

Brilliant pictures for effective visual communication

PT-DW6300US
PT-DW6300ULS

WXGA
6,000 lm

PT-D6000US
PT-D6000ULS

XGA
6,500 lm

PICTURE BY DLP™ A TEXAS INSTRUMENTS TECHNOLOGY

A New Standard for 1-chip DLP™ Projectors

Refined Image Quality with Reliablility and Easy Maintenance

Panasonic 1-chip DLP™ projectors are brighter and better than ever with a compilation of numerous Panasonic proprietary technologies. The wide-aspect PT-DW6300US/DW6300ULS* with a brightness of 6,000 lumens, and PT-D6000US/D6000ULS* with a brightness of 6500 lumens produce vivid colorful images with the aid of the newly engineered RGB Booster. The Dual-Lamp System makes sure that presentations aren't interrupted even if a lamp suddenly burns out. This is joined by the Auto Cleaning Filter, which makes filter cleaning unnecessary for approximately 10,000 hours, for high reliability. Both models offer easy and flexible system configuration.

PT-**DW6300US**
PT-**DW6300ULS***
WXGA
6,000 lm

PT-**D6000US**
PT-**D6000ULS***
XGA
6,500 lm

*The PT-DW6300ULS and PT-D6000ULS are sold without lenses.
The specifications are the same as those of the PT-DW6300US and PT-D6000US.

Vivid Picture Quality with High Brightness

RGB Booster Significantly Improves Color Reproduction

The RGB Booster achieves high image quality with levels of color reproduction (up to 145% that of conventional models) and brightness that make each color stand out. It combines Panasonic's proprietary Vivid Color Control technology with a newly engineered Lamp Modulation Drive System for a 1-chip DLP™ projector that produces bright and vivid colors.

■ Vivid Color Control

This unique control technology optimizes the use of the color segment areas of the color wheel. It increases the brightness of each RGB color by minimizing the unallocated portions between the colors, to achieve truly vivid coloring.

■ Lamp Modulation Drive System

With the new lamp modulation technology, the projector is now able to control the lamp intensity for each of the red, green, blue, and white segments of the color wheel separately. Because the actual light output is controlled in relation to each color segment, light usage is optimized and color balance is obtained without lowering the brightness. This results in bright vivid images with increased color fidelity.

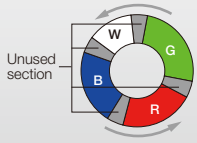
Conventional System

Conventional

Conventional technology was unable to use the boundaries between colors.

Conventional Lamp Drive System

Color Wheel: B W G R



Lamp Power

Because the lamp power was fixed in conventional projectors, color reproduction was enhanced by sacrificing brightness.

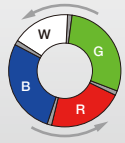
RGB Booster

Vivid Color Control

Ensures maximum utilization of the color wheel by minimizing unused section.

Lamp Modulation Drive System

Color Wheel: B W G R



Lamp Power

By modulating the lamp power, we can maximize the color reproduction of each color without sacrificing brightness.

High Brightness with New AC Lamp

Our newly-developed 300-watt AC lamps are used in the PT-DW6300US/ D6000US. The high-efficiency light convergence technology and the color wheel work together to achieve the high brightness of 6,000 lm for the PT-DW6300US and 6,500 lm for the PT-D6000US. Clear, crisp images are reproduced even in bright rooms.

Detail Clarity Processor Brings Depth and Clarity to Details

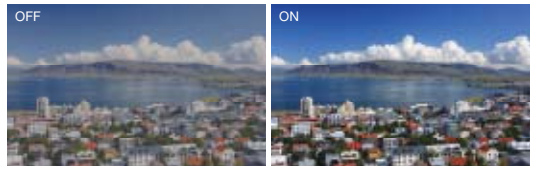
This advanced image-processing circuit analyzes the video signal frequency range for each scene by extracting data on the distribution of high, mid, and low-frequency components, and brings out fine details accordingly. The resulting images have a more natural, three-dimensional appearance with crisp, clear detail.

Conventional sharpness control:
Sharpness is applied uniformly, which can cause a halo or ring effect and diminish the sense of depth.

Detail Clarity Processor:
Signal frequency is extracted real-time and necessary sharpness is applied at varying degrees for natural, life-like images.

System Daylight View 2 for Enhanced Color Perception

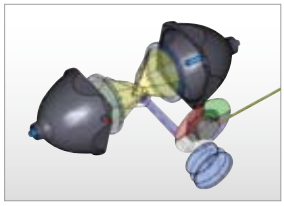
Image details are less clear when a projector is used in a room with the lights on. Panasonic's System Daylight View 2 improves brightness perception by adjusting sharpness, Gamma curves, and color corrections. This produces crisper, more stunning images with vivid colors even under bright conditions.



Easy Maintenance and Superior Reliability

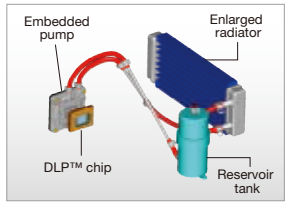
Dual-Lamp System Prevents Image Interruptions

The Dual-Lamp System increases brightness and eliminates the need to interrupt a presentation if a lamp should burn out (in dual-lamp operation mode). The Lamp Relay mode also operates the lamps alternately to enable 24/7 projector operation.



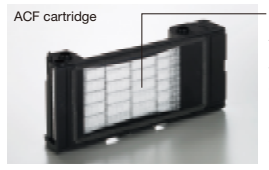
Liquid Cooling System Attains a High Level of Reliability

The liquid cooling system directly cools the DLP™ chip to improve performance and enable operation up to 113°F/45°C. This allows use in a wider variety of environments, while stabilizing performance and keeping the unit quiet even in harsh conditions.



Auto Cleaning Filter Reduces Maintenance Hassles

The Auto Cleaning Filter (ACF) provides a clean filter surface whenever it senses clogging, and brushes dust from the filter. This enhances the Micro Cut Filter's performance, so no filter replacement is needed for over 10,000 hours*, reducing maintenance.



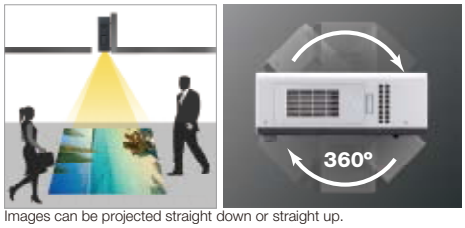
Micro Cut Filter
An electrostatic filter in the air intake section traps particles that are 1 micron or larger. It guards the optical block and keeps dust from entering the interior to provide stable operation.

*The replacement cycle given here is a guideline. It may differ depending on the usage environment.

System Integration Flexibility

Flexible Installation

The wide adjustment range of the powered horizontal/vertical lens shift function assures virtually distortion-free images and adds convenience and versatility. It lets you easily make adjustments with the remote control. The unit can also be rotated 360° vertically. This means you can install it at any angle you want, to accommodate different installation conditions.



Images can be projected straight down or straight up.

Side-by-Side Function PT-DW6300US/DW6300ULS

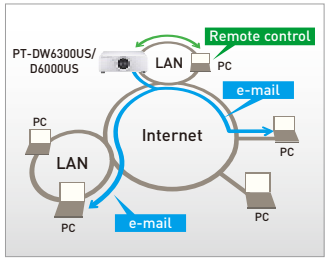
The PT-DW6300US can simultaneously display images from two sources* onto a single screen. For example, you can display a PC image on the left and a video image on the right. Taking advantage of the wide-screen projection, this function gives you a host of new application possibilities to explore.

*Some source combinations are not supported.

With the wide-aspect-ratio capability, you can project two large 4:3 images side-by-side.

Web Browser Control/Monitoring and E-mail Message Alert

The PT-DW6300US/D6000US can be easily operated remotely over a LAN network, because it is all done using the computer's familiar web browser. Furthermore, the projector sends an e-mail message to notify the operator when an error has occurred, or a lamp needs to be replaced.



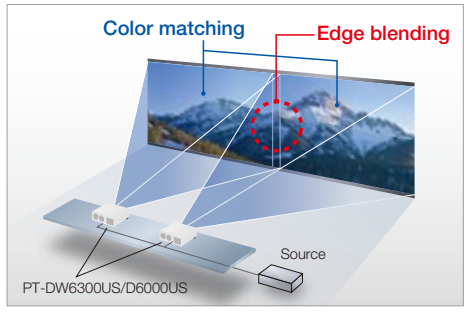
PJLink™ Compatibility

The LAN terminals support PJLink™ Class 1 connection, which is highly convenient for system construction.

Multi Projector Monitoring & Control Software

Panasonic's original "Multi Projector Monitoring & Control" freeware allows the user to control and monitor multiple projectors at the same time via LAN. Projectors can be scheduled to turn on and off at a certain hour everyday. When a problem occurs, an alarm message is sent to the monitoring/controlling PC.

Multi-Screen Support System Seamlessly Connects Multiple Screens



■ Edge Blending

The edges of adjacent screens can be blended and their luminance controlled.

■ Color Matching

This function corrects for slight variations in the color reproduction range of individual projectors.

■ Multi-screen Processor

The PT-DW6300US/D6000US can project large, multi-screen images without any additional equipment. Up to 100 units (10 x 10) can be edge-blended at a time.

Standby Mode: eco*

The PT-DW6300US/D6000US has attained a low standby power level of 0.2 W, which is a top-class level in its class. It also helps to slash running costs, and reduces environmental impact.

*During eco standby mode operation, network functions such as standby-on from a LAN network and the serial output terminal will not operate.

Other Features

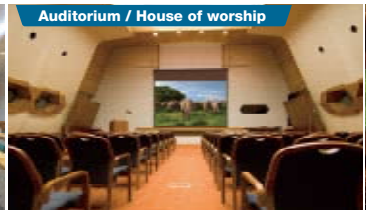
- •Full 10-bit Signal Processing
- •3D Color Management System
- •HD IP Converting Circuitry
- •Digital Signal Noise Reduction Circuitry
- •Dynamic Sharpness Control Circuitry
- •Mechanical Lens Shutter
- •30m Long Range Wireless Remote Control
- •Direct Power Off

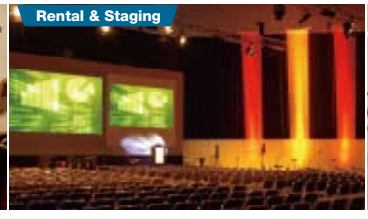
Ecology-conscious Design

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-DW6300US/D6000US reflects the following ecological considerations.

- No halogenated flame retardants are used in the cabinet.
- Lamp power switching further reduces power consumption.
- Auto Power Save activates standby mode when no signal is input.
- Standby power consumption of only 0.2 W has been achieved.

Recommended Applications





The PT-DW6300US/D6000US boasts superior image quality, flexible installation, and easy maintenance, making either model an ideal choice for use in classrooms, auditoriums, houses of worship, museums, and much more.

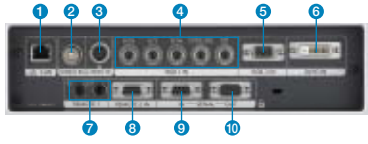
Specifications

Models		PT-DW6300US/DW6300ULS	PT-D6000US/D6000ULS
Power supply		120 V AC 50/60 Hz	
Power consumption		780 W (780 VA), (Standby mode eco*1: 0.2W, Standby mode normal: 8 W. Both with fan stopped.)	
DLP™ chip	Panel size	0.65″ diagonal (16:10 aspect ratio)	0.7″ diagonal (4:3 aspect ratio)
	Display method	DLP™ chip x 1, DLP™ system	
	Pixels	1,024,000 (1,280 x 800) x 1, total of 1,024,000 pixels	786,432 (1,024 x 768) x 1, total of 786,432 pixels
Lens PT-DW6300US/D6000US		Powered zoom/focus lenses (1.8–2.4:1), F 1.7–2.0, f 25.6–33.8 mm	
PT-DW6300ULS/D6000ULS		Optional powered zoom/focus lenses	
Lamp		300 W UHM lamps (x 2) (dual lamp system)	
Screen size		50–600 inches (50–200 inches with the ET-DLE055), 16:10 aspect ratio	50–600 inches (50–200 inches with the ET-DLE055), 4:3 aspect ratio
Brightness*2		6,000 lumens (dual-lamp, high power mode)	6,500 lumens (dual-lamp, high power mode)
Center-to-corner uniformity*2		90 %	
Contrast*2		2,000:1 (full on/full off, contrast mode: high)*3	
Resolution		1,280 x 800 pixels (Input signals that exceed this resolution will be converted to 1,280 x 800 pixels.)	1,024 x 768 pixels (Input signals that exceed this resolution will be converted to 1,024 x 768 pixels.)
Scanning frequency	DVI-D	Horizontal: 15–91 kHz, Vertical: 50–85 Hz, Dot clock: 162 MHz or lower	
	RGB	Horizontal: 15–91 kHz, Vertical: 50–85 Hz, Dot clock: 150 MHz or lower	
	Y_PP_R (Y_CC_R)	525i (480i), 625i (576i), 525p (480p), 625p (576p), 750 (720)/60p, 750 (720)/50p, 1035/60i, 1125 (1080)/60i, 1125 (1080)/50i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p, 1080/60p, 1080/50p	
	S-Video/Video	Horizontal: 15.75/15.63 kHz, Vertical: 50/60 Hz, (NTSC, NTSC4.43, PAL, PAL60, PAL-N, PAL-M, SECAM)	
Optical axis shift		Vertical: +60 % (powered), horizontal: ±10 % (powered)	Vertical: +50 % (powered), horizontal: ±10 % (powered)
Keystone correction range		Vertical: ±40° (±30° with the ET-DLE055)	
Installation		Ceiling/floor, front/rear	
Terminals*4	DVI-D IN	DVI-D 24-pin	
	RGB 1/Y_PP_R IN	BNC x 5	
	RGB 2/Y_PP_R IN	D-sub HD 15-pin	
	VIDEO IN	BNC	
	S-VIDEO IN	Mini DIN 4-pin	
	SERIAL IN	D-sub 9-pin (RS-232C compliant)	
	SERIAL OUT	D-sub 9-pin	
	REMOTE 1 IN	M3 jack	
	REMOTE 1 OUT	M3 jack	
	REMOTE 2 IN	D-sub 9-pin	
	LAN	RJ-45 for network connection, 10Base-T/100Base-TX, compliant with PJLink™	
Power cord length		9′10″ (3.0 m)	
Cabinet material		Molded plastic	
Dimensions (W x H x D) PT-DW6300US/D6000US		19-19/32″ x 6-7/8″ x 17-5/16″ (498 mm x 175 mm x 440 mm) (with supplied lens)	
PT-DW6300ULS/D6000ULS		19-19/32″ x 6-7/8″ x 17″ (498 mm x 175 mm x 432 mm) (without lens)	
Weight*5 PT-DW6300US/D6000US		Approx. 35.3 lbs (16.0 kg) (with supplied lens)	
PT-DW6300ULS/D6000ULS		Approx. 33.5 lbs (15.2 kg) (without lens)	
Operating temperature		32–113°F (0–45°C)	
Operating humidity		20–80 % (no condensation)	
Supplied accessories		Power cord, Wireless/wired remote control unit, Batteries for remote control (x 2), Wire rope	

*1 During eco standby mode operation, network functions such as standby-on from a LAN network and the serial output terminal will not operate. *2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. *3 Brightness: 3,000 lumens (PT-DW6300US/DW6300ULS), 3,250 lumens (PT-D6000US/D6000ULS). *4 The HD/SYNC and VD inputs do not accept the tri-level sync signal. *5 Average value. May differ depending on models.

Multiple terminals

1. LAN Terminal
2. Video Input
3. S-Video Input
4. RGB 1 Input
5. RGB 2 Input
6. DVI-D (HDCP Compatible) Input
7. Remote 1 Input and Output
8. Remote 2 Input
9. Serial Input
10. Serial Output



Optional accessories

Lens

Zoom lens **ET-DLE150** (1.4–2.0:1) PT-DW6300 (1.3–2.0:1) PT-D6000

Zoom lens **ET-DLE250** (2.4–3.8:1) PT-DW6300 (2.4–3.7:1) PT-D6000

Zoom lens **ET-DLE350** (3.8–5.7:1) PT-DW6300 (3.7–5.6:1) PT-D6000

Zoom lens **ET-DLE450** (5.6–9.0:1) PT-DW6300 (5.5–8.9:1) PT-D6000

Fixed-focus lens **ET-DLE055** (0.8:1)

Lamp

Replacement lamp unit
ET-LAD60
ET-LAD60W (twin pack)

Filter

Replacement filter unit
ET-ACF100

Ceiling mount bracket

ET-PKD56H (for high ceilings)
ET-PKD55S (for low ceilings)

ET-PKD55S

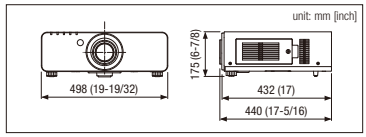
ET-PKD56H

Black color models

Models	PT-DW6300UK/D6000UK	PT-DW6300ULK/D6000ULK
Color variation	 Black	 Black
Lens	Included	Not included
Special order	Yes	Yes

*The specifications are the same as those of the PT-DW6300US and PT-D6000US.

Dimensions



Projection distance

PT-DW6300U screen size (16:10)	Throw distance											
Diagonal image size	With ET-DLE150 1.4-2.0:1		With supplied lens		With ET-DLE250 2.4-3.8:1		With ET-DLE350 3.8-5.7:1		With ET-DLE450 5.6-9.0:1		With ET-DLE055 0.8:1
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
50"	1,447mm 4.8'	2,116mm 7.0'	1,922mm 6.4'	2,557mm 8.4'	2,542mm 8.4'	4,063mm 13.4'	3,999mm 13.2'	6,112mm 20.1'	5,957mm 19.6'	9,595mm 31.5'	871mm 2.9'
80"	2,348mm 7.8'	3,416mm 11.3'	3,114mm 10.3'	4,130mm 13.6'	4,116mm 13.6'	6,548mm 21.5'	6,479mm 21.3'	9,860mm 32.4'	9,711mm 31.9'	15,531mm 51.0'	1,423mm 4.7'
100"	2,949mm 9.7'	4,282mm 14.1'	3,909mm 12.9'	5,178mm 17.0'	5,165mm 17.0'	8,204mm 27.0'	8,133mm 26.7'	12,359mm 40.6'	12,215mm 40.1'	19,488mm 64.0'	1,791mm 5.9'
150"	4,450mm 14.6'	6,448mm 21.2'	5,896mm 19.4'	7,799mm 25.6'	7,787mm 25.6'	12,346mm 40.6'	12,266mm 40.3'	18,605mm 61.1'	18,473mm 60.7'	29,382mm 96.4'	2,710mm 8.9'
200"	5,952mm 19.6'	8,614mm 28.3'	7,884mm 25.9'	10,420mm 34.2'	10,410mm 34.2'	16,488mm 54.1'	16,400mm 53.9'	24,852mm 81.6'	24,731mm 81.2'	39,276mm 128.9'	3,629mm 12.0'
300"	8,955mm 29.4'	12,946mm 42.5'	11,858mm 39.0'	15,662mm 51.4'	15,654mm 51.4'	24,771mm 81.3'	24,668mm 81.0'	37,345mm 122.6'	37,248mm 122.3'	59,063mm 193.8'	— —
400"	11,958mm 39.3	17,278mm 56.7'	15,832mm 52.0'	20,903mm 68.6'	20,899mm 68.6'	33,055mm 108.5'	32,936mm 108.1'	49,838mm 163.6'	49,764mm 163.3'	78,850mm 258.7'	— —
500"	14,960mm 49.1'	21,610mm 70.9'	19,807mm 65.0'	26,145mm 85.8'	26,144mm 85.8'	41,338mm 135.7'	41,203mm 135.2'	62,331mm 204.5'	62,280mm 204.4'	98,637mm 323.7'	— —
600"	17,963mm 59.0'	25,942mm 85.2'	23,781mm 78.1'	31,387mm 103.0'	31,389mm 103.0'	49,622mm 162.9'	49,471mm 162.4'	74,824mm 245.5'	74,797mm 245.4'	118,425mm 388.6'	— —
PT-DW6300U screen size (16:9)												
50"	1,489mm 4.9'	2,176mm 7.2'	1,977mm 6.5'	2,630mm 8.7'	2,615mm 8.6'	4,178mm 13.8'	4,114mm 13.5'	6,286mm 20.7'	6,131mm 20.2'	9,870mm 32.4'	897mm 3.0'
80"	2,415mm 8.0'	3,512mm 11.6'	3,203mm 10.6'	4,246mm 14.0'	4,233mm 13.9'	6,732mm 22.1'	6,663mm 21.9'	10,138mm 33.3'	9,990mm 32.8'	15,971mm 52.4'	1,464mm 4.9'
100"	3,032mm 10.0'	4,403mm 14.5'	4,020mm 13.2'	5,324mm 17.5'	5,311mm 17.5'	8,435mm 27.7'	8,362mm 27.5'	12,706mm 41.7'	12,563mm 41.3'	20,038mm 65.8'	1,842mm 6.1'
150"	4,576mm 15.1'	6,629mm 21.8'	6,062mm 19.9'	8,017mm 26.4'	8,006mm 26.3'	12,692mm 41.7'	12,611mm 41.4'	19,126mm 62.8'	18,995mm 62.4'	30,207mm 99.2'	2,786mm 9.2'
200"	6,119mm 20.1'	8,855mm 29.1'	8,105mm 26.6'	10,711mm 35.2'	10,701mm 35.2'	16,948mm 55.7'	16,860mm 55.4'	25,546mm 83.9'	25,427mm 83.5'	40,376mm 132.5'	3,731mm 12.3'
300"	9,205mm 30.3'	13,307mm 43.7'	12,189mm 40.0'	16,099mm 52.9'	16,092mm 52.8'	25,462mm 83.6'	25,358mm 83.2'	38,387mm 126.0'	38,292mm 125.7'	60,713mm 199.2'	— —
400"	12,292mm 40.4'	17,760mm 58.3'	16,274mm 53.4'	21,486mm 70.5'	21,482mm 70.5'	33,976mm 111.5'	33,855mm 111.1'	51,227mm 168.1'	51,156mm 167.9'	81,051mm 266.0'	— —
500"	15,378mm 50.5'	22,212mm 72.9'	20,359mm 66.8'	26,874mm 88.2'	26,873mm 88.2'	42,490mm 139.5'	42,353mm 139.0'	64,068mm 210.2'	64,020mm 210.1'	101,388mm 332.7'	— —
600"	18,464mm 60.6'	26,665mm 87.5'	24,444mm 80.2'	32,261mm 105.9'	32,264mm 105.9'	51,004mm 167.4'	50,850mm 166.9'	76,908mm 252.4'	76,885mm 252.3'	121,725mm 399.4'	— —
PT-D6000U screen size (4:3)												
Diagonal image size	With ET-DLE150 1.3-2.0:1		With supplied lens		With ET-DLE250 2.4-3.7:1		With ET-DLE350 3.7-5.6:1		With ET-DLE450 5.5-8.9:1		With ET-DLE055 0.8:1
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
50"	1,344mm 4.5'	1,967mm 6.5'	1,785mm 5.9'	2,376mm 7.8'	2,361mm 7.8'	3,777mm 12.4'	3,713mm 12.2'	5,681mm 18.7'	5,525mm 18.2'	8,912mm 29.3'	808mm 2.7'
80"	2,183mm 7.2'	3,177mm 10.5'	2,895mm 9.5'	3,840mm 12.6'	3,826mm 12.6'	6,090mm 20.0'	6,023mm 19.8'	9,170mm 30.1'	9,020mm 29.6'	14,438mm 47.4'	1,322mm 4.4'
100"	2,742mm 9.0'	3,983mm 13.1'	3,635mm 12.0'	4,816mm 15.9'	4,803mm 15.8'	7,633mm 25.1'	7,562mm 24.9'	11,496mm 37.8'	11,351mm 37.3'	18,123mm 59.5'	1,664mm 5.5'
150"	4,140mm 13.6'	6,000mm 19.7'	5,485mm 18.0'	7,256mm 23.9'	7,244mm 23.8'	11,489mm 37.7'	11,411mm 37.5'	17,312mm 56.8'	17,177mm 56.4'	27,333mm 89.7'	2,519mm 8.3'
200"	5,537mm 18.2'	8,016mm 26.3'	7,335mm 24.1'	9,696mm 31.9'	9,686mm 31.8'	15,344mm 50.4'	15,259mm 50.1'	23,127mm 75.9'	23,004mm 75.5'	36,544mm 119.9'	3,375mm 11.1'
300"	8,333mm 27.4'	12,049mm 39.6'	11,035mm 36.3'	14,576mm 47.9'	14,568mm 47.8'	23,056mm 75.7'	22,956mm 75.4'	34,758mm 114.1'	34,656mm 113.8'	54,966mm 180.4'	— —
400"	11,129mm 36.6'	16,082mm 52.8'	14,735mm 48.4'	19,456mm 63.9'	19,451mm 63.9'	30,768mm 101.0'	30,653mm 100.6'	46,389mm 152.2'	46,309mm 152.0'	73,387mm 240.8'	— —
500"	13,924mm 45.7'	20,115mm 66.0'	18,435mm 60.5'	24,336mm 79.9'	24,334mm 79.9'	38,480mm 126.3'	38,350mm 125.9'	58,020mm 190.4'	57,961mm 190.2'	91,809mm 301.3'	— —
600"	16,720mm 54.9'	24,148mm 79.3'	22,135mm 72.7'	29,216mm 95.9'	29,217mm 95.9'	46,192mm 151.6'	46,047mm 151.1'	69,651mm 228.6'	69,614mm 228.4'	110,231mm 361.7'	— —

NOTES ON USE

1. Do not install the projector in locations that are subject to excessive water, humidity, steam, or oily smoke. Doing so may result in fire, malfunction, or electric shock.
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.
3. The projector uses a high-wattage lamp that becomes very hot during operation. Please observe the following precautions.
   - Never place objects on top of the projector while it is operation.
   - Make sure there is an unobstructed space of 500 mm (1.64 feet) or more around the projector's exhaust openings.
   - Do not stack projector units directly on top of one another for the purpose of multiple (stacked) projection. When stacking projector units, be sure to provide the amount of space indicated between them. These space requirements also apply to installation where only one projector unit is operating atone time and the other unit is used as a backup.
   - If the projector is placed in a box or enclosure, temperature of the air surrounding the projector must be between 0 °C (32 °F) and 40 °C (104 °F). Also make sure the projector's intake and exhaust openings are not blocked. Take particular care to ensure that hot air from the exhaust openings is not sucked into the intake openings.
     * Even when the ambient temperature near the intake opening is 40 °C (104 °F) or lower, an accumulation of hot air inside the cabinet may cause the protective circuit to activate and shut down the projector. Please give ample consideration to the design with regard to ambient temperature conditions.
4. If the projector is to be operated continuously 24 hours a day, use the dual-lamp optical system's alternating lamp operation (lamp changer) function. The projector cannot be operated continuously 24 hours a day in dual-lamp mode. Allow a minimum of two hours per day of non-operation time per lamp if using the dual-lamp mode.
5. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
   - 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.
   - The brightness of the lamp will gradually decrease with use.

Panasonic®

For more information about Panasonic projectors —
http://panasonic.net/avc/projector

Please contact Panasonic or your dealer for a demonstration.

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EC98J2010

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All information included here is valid as of March 2009.

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Panasonic
ideas for life

PT-**LB90** Series
LCD Projectors

PT-**LB90NT**U
PT-**LB90**U
PT-**LB78V**U

Versatile Performance
with
Eco in Mind

Bright, Easy-to-Use, Dust-Resistant Portable Projectors

The Panasonic LB90 Series is designed for people who want a projector with excellent basic performance and ease of use—in both portable and ceiling-mounted applications. This versatile series ensures solid performance with a **dust-resistant structure**, which minimizes any dust-related image degradation, and a low standby power consumption of 0.9 W*[1] to reduce environmental impact.

The PT-LB90NTU also features a **network function** that allows wireless/wired LAN configurations. Connecting the projector to a wireless LAN system further boosts the layout flexibility during presentations.

Wired LAN connection enables remote operation, which is especially **ideal for ceiling-mounted use**.

Multi Projector Monitoring and Control Software, which lets you monitor and control several Panasonic projectors from a single computer, is also available.

The compact body of the LB90 Series is filled with Panasonic projector technologies to meet needs of many kinds.

Choose the one that suits your needs

PT-**LB90NTU**

3500 lm | XGA | Network

PT-**LB90U**

3500 lm | XGA

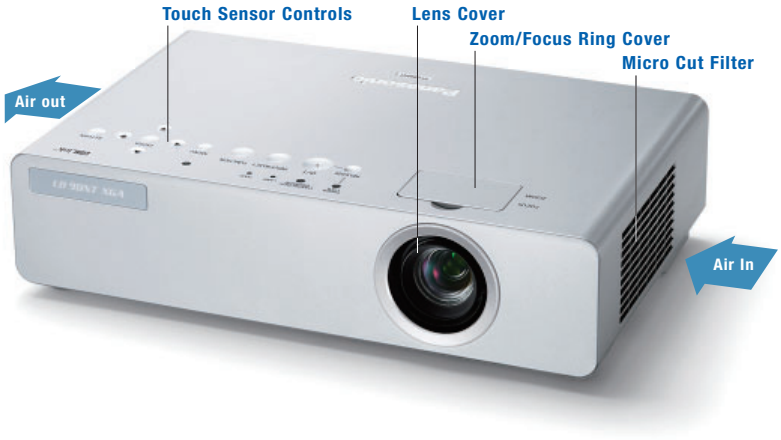
PT-**LB78VU**

3000 lm | XGA

*1 In Eco Standby mode, network functions such as Standby On via LAN are not available, and only certain commands can be received from RS-232C control.

Versatile Basic Performance

An Ecological Design with a Reliable Dust-Resistant Structure and Low Standby Power Consumption of 0.9 W*1

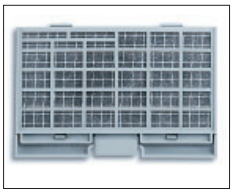


Touch-sensor controls on the top.

Dust-Resistant Structure Minimizes Image Degradation

After a projector has been used for some time, dust particles that have entered the interior accumulate on the optical components and lower their performance. The LB90 Series prevents this with a unique dust-resistant structure. The LB90 Series has touch-sensor controls that eliminate the gaps around conventional buttons, and a lens cover. The design also incorporates a cover that protects the zoom/focus ring when not in use. These features combine to help reduce dust entry. And they all work together with the high-performance Micro Cut Filter, which effectively traps dust particles, to minimize brightness degradation.

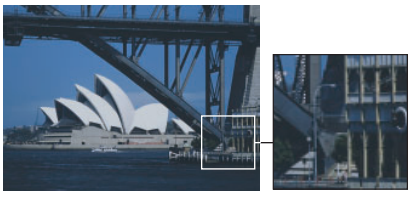
A zoom/focus ring cover and lens cover.



Micro Cut Filter
This electrostatic filter uses an ion effect to attract and trap dust particles.

Daylight View 4 Offers Clear, Crisp Images Even in Bright Surroundings*2

Daylight View 4 measures the surrounding illumination with a built-in ambient light sensor, and corrects the image in real-time to project clear, crisp images even in brightly lit rooms. It improves perceived sharpness, brightness and contrast, and projects lifelike images with remarkable depth.



Simulated image with Daylight View 4 turned off.
Overall contrast appears lower, and images in dark areas cannot be seen.

Simulated image with Daylight View 4 turned on.
Even the details in shadows are clearly rendered. The sharpness, brightness and contrast of the entire screen are improved.

Low Standby Power Consumption of 0.9 W*1

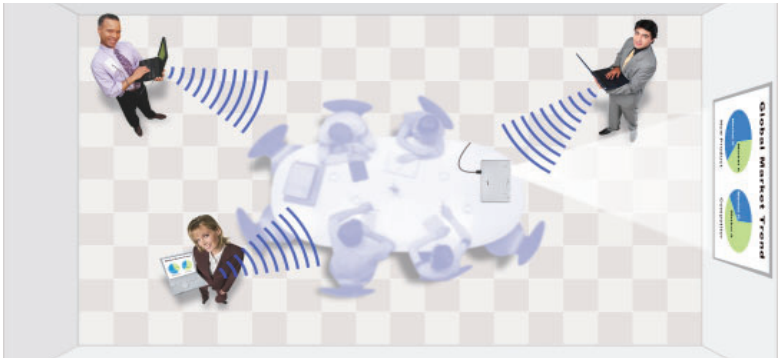
The ecological design of the LB90 Series greatly reduces its environmental impact. In Eco Standby mode, power consumption is only 0.9 W*2. This reduction brings standby power consumption down to about 1/3 the level of previous Panasonic models*3. As examples of other environmental design features, no styrofoam is used in packing materials, no halogenated flame retardants are used in the cabinet, lead-free glass is used for the lens, and an Auto Off Timer switches the projector to Standby mode when no input signal is received for a preset time. The LB90 Series also complies with the standards of the RoHS Directive*4.

Eco Information

- No styrofoam is used in packing materials.
- No halogenated flame retardants are used in the cabinet.
- Lead-free glass is used for the lens.
- An Auto Off Timer switches the projector to Standby mode when no input signal is received for a preset time.

*1 In Standby Eco mode, network functions such as Standby On via LAN are not available, and only certain commands can be received from RS-232C control.
*2 There is no actual change in the rated brightness or contrast ratio.
*3 Reduced from 3 W in the PT-LB80NTU to 0.9 W in the PT-LB90NTU.
*4 Restriction of the use of certain Hazardous Substances. The specified toxic substances used in the electrical and electronic equipment that is manufactured and distributed within Europe are controlled (the six substances are lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl esters (PBDE)), and all Panasonic projectors comply with the standards of the European RoHS Directive.

Wired/Wireless LAN Compatible Network Functions
(Only on the PT-LB90NTU)



Quick and Easy Set-Up for Flexible Presentations

The Wireless Manager ME5.5 application that is included with the projector makes it easy to send and display a computer screen when the PC and projector are connected to a wired or wireless*5 LAN system. You can also send audio*6 and video*7 files. The application is compatible with both Windows® and Macintosh, and can be used with a wide range of computers. Wireless Manager ME 5.5 operation can be controlled with the launcher that is displayed on the PC screen. Its graphic display further simplifies operation. When connected to a wireless LAN*5 system, you don't need to connect a VGA cable to the PC, so set-up is quick and easy, and the layout is highly flexible. You can also project several PC screens, so meetings with a large number of participants can proceed smoothly.

Launcher for Windows®

Launcher for Macintosh

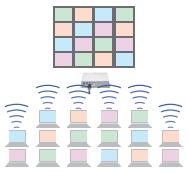
- **Multi-Live Mode**

You can simultaneously display up to 16 computer screens, opening the door to a variety of new projector applications.

Four-Window Multi Style
This style displays up to four computer screens at a time. Great for ensuring that all members of a meeting are able to participate.

Four-Window Index Style
This one displays thumbnails of four computer screens. From it, you can display a full-size screen of any selected PC by wireless remote control. Ideal for presenter-led meetings.

16-Window Index Style
This style displays thumbnails of 16 computer screens. Good for displaying a list of computers.

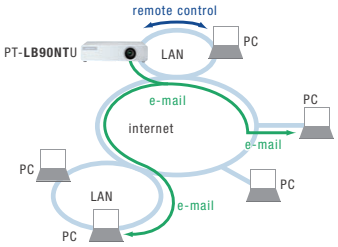


- **Projector Signal Map (S-MAP)**

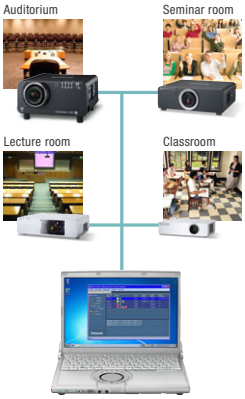
The Projector Signal Map graphically displays all of the presently connectable projectors in three levels that indicate the strength of the wireless signals between the projectors and your computer. This lets you easily search for the projectors you want even when wireless projectors are being used in adjacent conference rooms or classrooms.

Easy Remote Operation

A Web browser on a computer connected through a wireless*5 or wired LAN system lets you remotely operate projectors and check their status. An e-mail messaging function can also notify you when a lamp needs replacement, and indicate the overall projector status. In addition, Multi Projector Monitoring and Control Software*8 is available for monitoring and controlling multiple Panasonic projectors from a single PC. The wired LAN terminal is compatible with PJLink™(Class1), an open protocol that is used by many manufacturers, to enable integrated control of systems that contain different brands of projectors.



Remote operation using a Web browser.



Basic concept of the Multi Projector Monitoring and Control Software.

Wireless Manager ME 5.5 system requirements	
OS	Microsoft® Windows® 2000 Professional SP4, Windows® XP Professional, Windows® XP Home Edition, Windows® XP Tablet PC Edition 2005, Windows Vista® Ultimate 32-bit, Windows Vista® Business 32-bit, Windows Vista® Home Premium 32-bit, Windows Vista® Home Basic 32-bit Apple Mac OS X 10.4 (Tiger) and OS X 10.5 (Leopard) ***NOTE: Some functions are not available with Windows Vista® and Mac***
Web browser	Windows®: Internet Explorer 6.0 or later Macintosh: Safari 2.0 or later
CPU	Windows®: Intel® Pentium® III or higher, or other compatible processor (1 GHz or higher is recommended.) Mac OS X: 1-GHz or higher PowerPC G4, or 1.8-GHz or higher Intel® Core™ processor
Memory	256 MB or more (512 MB or higher is recommended for Mac OS X)
Free hard disk space	60 MB or more
Hardware conditions	CD-ROM drive or DVD drive
Wireless LAN	IEEE 802.11b/g compatible (built-in wireless LAN system or external IEEE 802.11b/g LAN card must be installed and running normally.) ***NOTE: Some IEEE 802.11g/b wireless LAN may not allow connection to the projector.*** For Mac OS, Built-in IEEE 802.11b/g wireless LAN adapter must be installed and running normally.
Wired LAN connector	RJ-45

*5 If your computer does not have a wireless LAN function, it will require a wireless LAN card. Only Macintosh computers with a built-in LAN function can be used.
*6 With Windows Vista® computers, it is necessary to log on to the administrator's account.
*7 DVD video, Blu-ray video and other content covered by DRM (Digital Rights Management) cannot be transmitted.
*8 Freeware. This software is available at **http://panasonic.net/avc/projector/download/**.

Handy Functions for a Variety of Applications

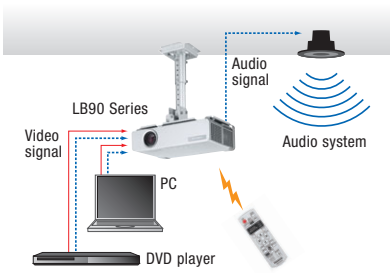
Convenient and Easy Functions for Portable Use

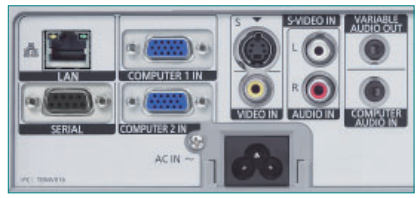
- The compact, lightweight body (approximately 2.96 kg (6.5 lbs)) makes it easy to move the projector from one classroom or conference room to another.
- With Speed Start, the image appears in about three seconds*9 after you press the power button.
- Auto Setup automatically corrects the image position, dot clock and clock phase when the projector's input signal changes.
- Auto Signal Search automatically detects what kind of source is connected and begins projection.*10
- With Real-Time Keystone Correction, the projector automatically senses if you adjust its angle (in the vertical direction) during operation and instantly makes whatever keystone correction is necessary for optimal viewing.
- Whiteboard and Blackboard modes are convenient when projecting in rooms that don't have a screen.

- Direct Power Off uses accumulated power to keep the cooling fan operating until the lamp is cooled, so you can disconnect the power cable immediately after use.
- A soft carrying case with shoulder belt is supplied.

Convenient Functions for Ceiling-Mounted Use

- Versatile interfaces: Interfaces include two computer (RGB) inputs, a wired LAN terminal*11, and a serial (RS-232C) terminal for external control. The serial terminal has an emulator function that lets you continue using existing control systems when replacing a previous Panasonic model. It is also possible to output audio during Standby mode. This is convenient when connecting an external audio system*12 through the projector.





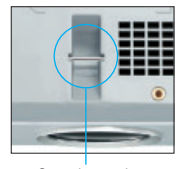
NOTE: The photo shows the rear terminals for the PT-LB90NTU.

- The lamp can be easily replaced from the rear panel without having to remove the projector from the ceiling mount bracket.

- Direct Power Off lets you turn off the room's main power switch without turning off the projector individually, so you can leave the room right after a meeting ends.

Effective Theft Prevention with the Startup Logo

You can change the default Panasonic start up logo to any logo you want. A new logo can be easily uploaded by connecting a computer to the LB90 Series through the LAN*13 or serial connection by using the Logo Transfer Software*14. An abundance of other security measures are also included, such as a security anchor, a user password, a control panel lock, and text superimposing.



Security anchor

Quiet, 29dB*15 Silent Design

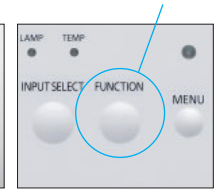
This helps maintain people's attention on the discussion taking place or the screen image during quiet scenes.

Easy-to-Use Remote Control

The large buttons and long operating range of the wireless remote control make it easy to use. During Wireless Live mode on the PT-LB90NTU, you can also shift between Microsoft® PowerPoint® pages by remote control. Plus, a frequently used function can be assigned to the Function button (located on both the remote and the main unit) for instant recall.

Function button

Two signal emitters extend the remote control range.

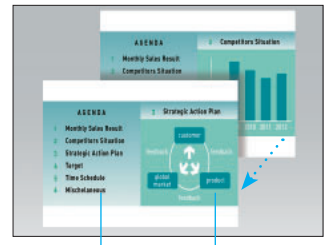


Function button on the main unit.

NOTE: The photo shows the remote control for the PT-LB90NTU.

Other Features

- Index Window*16: You can split the screen into two windows, right and left, and display a frozen (still) image in one and a real-time action image in the other.



A frozen image A real-time action image

- Digital Zoom: Expands selected parts of the display up to three times their original size*17.
- AV mute: Temporarily turns off both the image and the sound.
- Selectable 17-language on-screen menu.
- Built-in closed caption decoder

made in Japan

All LB90 Series projectors are carefully manufactured at the Panasonic factory in Japan, under strict quality control. This is another, very important advantage of a Panasonic projector.

*9 With the Startup Logo function turned off.
*10 Searches for approximately 3 minutes after the power is turned on.
*11 Only on the PT-LB90NTU.
*12 Requires speakers and an audio amplifier.
*13 Only the PT-LB90NTU is compatible.
*14 If required, download at **http://panasonic.net/avc/projector/download/**. Uploadable still images are limited to 1024 X 768 pixel bitmap files. Also, the application will reduce the number of colors to 191.
*15 With the lamp power in Eco mode.
*16 Cannot be used during wireless projection.
*17 Up to two times their original size when using video/S-Video signal input.

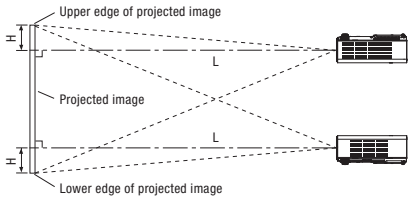
Specifications (The specifications and design are subject to change without notice as product development proceeds.)

Models		PT-LB90NTU	PT-LB90U	PT-LB78VU
Power supply		100–240 V AC, 50/60 Hz		
Power consumption		300 W		
		(0.9 W*1 in eco standby mode. 20 W in normal standby mode. 23 W in normal standby mode when set to audio monitor out and with fan stopped.)	(0.9 W*1 in eco standby mode. 15 W in normal standby mode. 18 W in normal standby mode when set to audio monitor out and with fan stopped.)	
Optical system		Dichroic mirror separation/prism synthesis system		
LCD panel	Panel size	0.63″ (16 mm) diagonal, 4:3 aspect ratio		
	Display method	Transparent LCD panel (x 3, R/G/B)		
	Drive method	Active matrix		
	Pixels	786,432 pixels ((1,024 x 768) x 3 panels)		
Lens		Manual zoom (1:1–1:1.2), manual focus, F 1.65–1.93, f 18.53–22.18 mm		
Throw ratio		1.4–1.7:1		
Lamp		220 W UHM lamp (The lamp replacement cycle is 3,000 hours.)*2		
Projection size (diagonally)		33–300 inches (4:3 aspect ratio)		
Colors		Full color (16,777,216 colors)		
Brightness*3		3,500 lumens		3,000 lumens
Center-to-corner uniformity*3		85 %		
Contrast ratio*3		500:1 (full on /full off)		
Resolution (RGB)		1,024 x 768*4		
Scanning frequency	RGB	Horizontal: 15–91 kHz, Vertical: 50–85 Hz		
	Y_PB_PR (Y_CB_CR)	480i (525i): f_H 15.75 kHz; f_V 60 Hz 480p (525p): f_H 31.5 kHz; f_V 60 Hz	576i (625i): f_H 15.63 kHz; f_V 50 Hz 576p (625p): f_H 31.25 kHz; f_V 50 Hz	720p (750p): f_H 45.00 kHz; f_V 60 Hz 720p (750p): f_H 37.50 kHz; f_V 50 Hz	1080i (1125i): f_H 33.75 kHz; f_V 60 Hz 1080i (1125i): f_H 28.13 kHz; f_V 50 Hz
	S-Video/Video	NTSC, NTSC4.43, PAL-M, PAL60: f_H 15.75 kHz; f_V 60 Hz PAL, SECAM, PAL-N: f_H 15.63 kHz; f_V 50 Hz		
Optical axis shift		5:1 (fixed)		
Keystone correction range		Vertical: ±30°		
On-screen menu		17 languages: English, French, German, Spanish, Italian, Korean, Russian, Chinese, Japanese, Swedish, Norwegian, Danish, Portuguese, Polish, Hungarian, Czech, and Thai		
Installation		Front/rear ceiling/desk (menu selection)		
Built-in speakers		1.0 W (monaural) output power		
Terminals	COMPUTER 1 IN	D-sub HD 15-pin x 1 (RGB/Y_PB_PR/Y_CB_CR x 1)		
	COMPUTER 2 IN	D-sub HD 15-pin x 1 (RGB/Y_PB_PR/Y_CB_CR x 1)		
	VIDEO IN	RCA pin x 1 (Composite video x 1)		
	S-VIDEO IN	Mini DIN 4-pin x 1 (S-Video x 1)		
	AUDIO IN	RCA pin x 2 (L-R x 1 for VIDEO/S-VIDEO)		
	COMPUTER AUDIO IN	M3 x 1 (L-R x 1 for COMPUTER 1/COMPUTER 2)		
	VARIABLE AUDIO OUT	M3 x 1 (L-R x 1)		
	SERIAL	D-sub 9-pin x 1 (RS-232C)		
	LAN	RJ-45 x 1, compatible with PJLink™ (class 1), 10BASE-T/100BASE-TX	–	
Power cord length		2 m (6′7″)		
Cabinet material		Molded plastic (PC+ABS)		
Dimensions (W x H x D)		368 x 88 x 233 mm (14-1/2″ x 3-15/32″ x 9-3/16″)*5		
Weight*6		Approx. 2.96 kg (6.5 lbs.)		
Operation environment		Temperature: 0°–40°C (32°–104°F), Humidity: 20%–80% (no condensation)		
Wireless LAN	Standard	IEEE802.11b/g	–	
	Infrastructure mode	WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES), 128/64-bit WEP	–	
	Ad-hoc mode	128/64-bit WEP	–	
Supplied accessories		Power cord, power cord secure lock, wireless remote control, batteries for remote control (AA type battery x 2), VGA cable, carrying bag		
		Wireless Manager ME 5.5 (CD-ROM)	–	

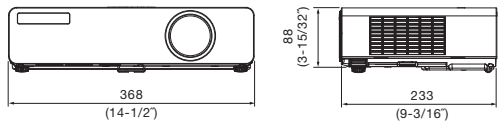
***1: In eco standby mode, network functions such as Standby On via LAN are not available, and only certain commands can be received from RS-232C control. *2: The above value is the maximum cycle for projector usage in which the lamp is turned on for 3.5 hours and then off for 30 minutes. The lamp replacement cycle will be shorter if the lamp is turned on more frequently or if it is kept on consecutively for a longer period of time. *3: Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. *4: Input signals that exceed this resolution will be converted to 1,024 x 768 pixels. *5: Protruding parts not included. *6: Average value.**

Projection Distance (Screen aspect ratio = 4:3)

Project size (diagonal)	Projection distance (L) Min (wide)	Max (telephoto)	Height from the edge of screen to center of lens (H)
0.84 m / 33″	– / –	1.1 m / 3.7′	0.08 m / 0.28′
1.02 m / 40″	1.1 m / 3.7′	1.4 m / 4.5′	0.10 m / 0.33′
1.52 m / 60″	1.7 m / 5.6′	2.1 m / 6.8′	0.15 m / 0.50′
2.03 m / 80″	2.3 m / 7.6′	2.8 m / 9.1′	0.20 m / 0.67′
2.54 m / 100″	2.9 m / 9.5′	3.5 m / 11.4′	0.25 m / 0.83′
3.81 m / 150″	4.3 m / 14.3′	5.2 m / 17.1′	0.38 m / 1.25′
5.08 m / 200″	5.8 m / 19.0′	7.0 m / 22.9′	0.51 m / 1.67′
7.62 m / 300″	8.7 m / 28.6′	10.5 m / 34.4′	0.76 m / 2.50′



Dimensions



unit mm (inches)

Optional Accessories

Replacement lamp unit: ET-LAB80

Ceiling mount bracket: ET-PKB80

NOTES ON USE

- 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.
- The brightness of the lamp will gradually decrease with use.
- The projector includes consumable parts. The frequency of replacement for the lamp and other consumable parts will increase if the projector is subjected to extended, continuous use. For details, please consult a service representative.

Panasonic®

Projectors Global Web Site: **http://panasonic.net/avc/proje**

Please contact Panasonic or your dealer for a demonstra

Panasonic Projector Systems Company,
Unit of Panasonic Corporation of North America
www.panasonic.com/projectors

Headquarters
3 Panasonic Way, 4B-9
Secaucus, NJ 07094
888-411-1996

JQA-0443

EC98J2010

Factories of Systems Business Group have received ISO14001:2004 – the Environmental Management System certification. (Except for 3rd party's peripherals.)

All information included here is valid as of September 2009.

PT-LB90NTU1 Printed in Japan.

Panasonic

ideas for life

PT-**LB51** Series

Micro Portable XGA/SVGA LCD Projectors

PT-**LB51NT**EA 2000 lm XGA

PT-**LB51**EA 2000 lm XGA

PT-**LB51S**EA 2000 lm SVGA

Practical and Easy.

A New Level of **Wireless** Convenience.

Wireless Projection the Easy Way

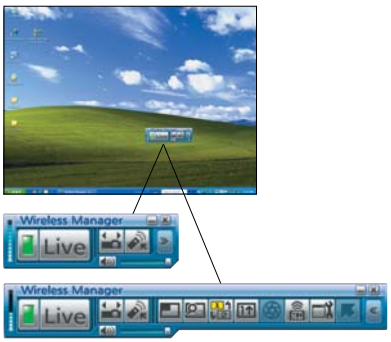
The PT-LB51NTEA's wireless ability completely eliminates the need for PC cable connection. You simply bring in your laptop (with a wireless LAN function) for smooth, hassle-free presentations and flexible room layouts. The supplied Wireless Manager ME 4.5 software makes setup quick and easy, and a host of wireless functions complement projector applications. On top of all this, the PT-LB51NTEA, PT-LB51EA and PT-LB51SEA incorporate Panasonic's original Daylight View 2 technology, which makes images easy to see even in brightly lit rooms.

Easy Wireless Projection
(PT-LB51NTEA)

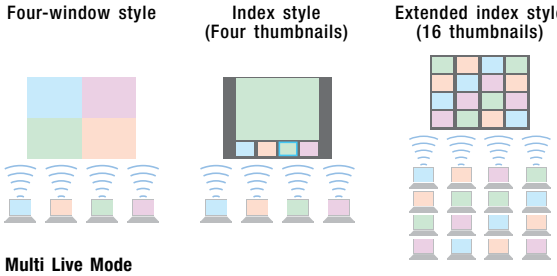
Easy Wireless Projection from Multiple PCs
You can make the settings for wireless connection quickly and easily using Wireless Manager ME 4.5 software. When the presentation is finished, Wireless Manager restores the PC to its previous LAN settings, so the PC is ready to reconnect to your LAN. Wireless Manager functions include Live mode and Multi-Live mode. In Live mode, the image projected is identical to the image seen on the PC screen. In Multi-Live mode, you can wirelessly connect with multiple PCs.

Virtual Remote Control
The same graphics used on the projector's remote control can be displayed on the PC screen. This makes it easy to operate the projector right from the PC, without having to use the remote control.

Easy Connection
Wireless Manager ME 4.5 greatly simplifies the PC-projector connection procedure. Simply press the "Computer Search" button on the supplied remote control and the projector locates all live-mode ready PCs in the area. All you do is select the desired PC-to-projector connection.



Wireless Manager Control Panel (Launcher)
To begin wireless projection, simply use the control panel (launcher) displayed in the PC window.

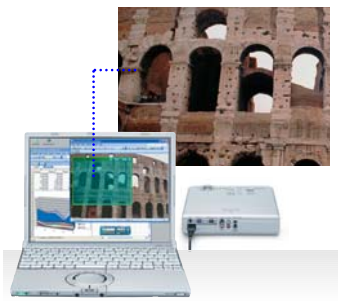


Multi Live Mode
The PT-LB51NTEA provides a host of convenient wireless functions, including Wireless Prompter (Secondary Display Transmission), selective area transmission and a 16-window index style that lets you project images from up to 16 PCs at the same time. Wireless transmission is possible from one PC to a maximum of eight projectors at a time.

Windows Vista™/Macintosh Compatibility
Wireless Manager ME 4.5 is Microsoft® Windows Vista™ compatible, and also allows wireless projection (in Live mode only) from a Macintosh computer running Mac OS X (v10.4 or later).

More convenient wireless functions (PT-LB51NTEA)

Selective Area Transmission



By using the area select window, you can specify the necessary information alone from the computer screen, and display it on the projection screen.

Wireless Prompter Function (Secondary Display Transmission)

This allows transmission of content other than what's displayed on your PC. For example, you can display text documents on your PC screen while projecting slide from your Microsoft® PowerPoint® presentation*[1].

Multiple Source Live Mode

You can simultaneously project a single computer's screen on up to eight projectors. This mode is useful when a number of projectors are installed, for example, in a large conference room, or when holding simultaneous presentations in several conference rooms.

- No need for PC cable connection
- Multiple PC connection capability
- A wide variety of wireless functions

Daylight View 2

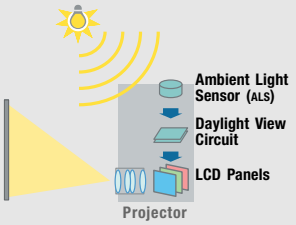
Crisp, Clear Images in a Well-Lit Room

Panasonic's Daylight View 2 technology, which helps project sharp, crisp images that are easy to see even in brightly lit rooms. A built-in sensor measures the ambient light, and the halftone colours and brightness level are adjusted accordingly in real-time.

Simulated image when the Daylight View 2 is turned off.

Simulated image when the Daylight View 2 is turned on.

The Daylight View 2 Process



Presentation Flexibility

Easy-to-Use Remote Control

The control range and distance have been extended compared to previous models, and the buttons are now larger and easier to use.

Equipped with two transmitters for an extended remote control range.

PT-LB51NTEA

PT-LB51EA
PT-LB51SEA

The PT-LB51NTEA's supplied remote control features Microsoft® PowerPoint® page up/down capability.

Blackboard Mode

This special picture mode allows the PT-LB51NTEA to project images onto an ordinary classroom or conference room blackboard when a projection screen is not available.

Ultra-Lightweight and Compact

At only 1.8 kg/1.9 kg*2, PT-LB51 models won't weigh you down—even when you're carrying with you a laptop. PT-LB51 projectors are 297 mm wide by 210 mm deep—about the size of an A4 sheet of paper—and only 57 mm high. Each slips easily into a bag or briefcase.

Rear view

Equipped with two computer (RGB) inputs. The computer (RGB) 2 IN can be switched to computer (RGB) 1 OUT for loop-through monitoring.

Quick Operation

Customisable Function Button

One frequently used function can be assigned to this button on the top panel of the projector for instant, pushbutton use. Select from shutter, auto setup, picture mode, freeze, and index window functions.

Two-Second Speed Start

With Speed Start, the image appears in about two seconds after you press the power button.

Auto Search

When a source is connected and you switch the unit on, it automatically detects what kind of source is connected and begins projection.

Real-Time Keystone Correction

The projector automatically senses if you adjust its angle (vertical direction) during operation and instantly makes whatever keystone correction is necessary for optimum viewing.

Direct Power Off

You can disconnect the power cable and move the projector as soon as your presentation is finished, because the cooling fan keeps operating until the lamp is cooled.

Other Features

• Operation assistance •Short-throw zoom lens • Anti-theft features: User password, control panel lock and text superimposing • Projector AI • Index Window • Auto power off • HDTV compatibility • Full compatibility with sRGB colour space for accurate colour reproduction (in natural mode) • Picture mode selection (standard/dynamic/natural) • 3x digital zoom • Shutter function for image/sound muting • Selectable 17-language on-screen menu • Ceiling mountable (option)

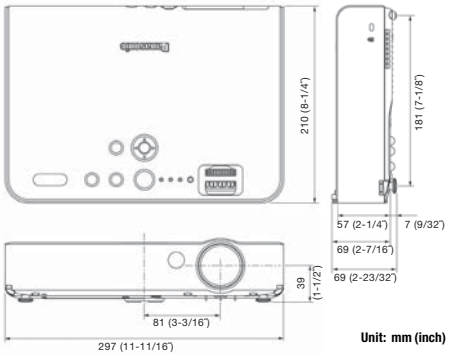
*1 With Wireless Manager ME 4.5, you can use the projector screen as a secondary monitor for the PC. In this setup, Microsoft® PowerPoint® must be set to "Show Presenter View."
*2 1.8 kg for the PT-LB51EA and PT-LB51SEA; 1.9 kg for the PT-LB51NTEA.

Specifications

Model number	PT-LB51NTEA	PT-LB51EA	PT-LB51SEA
Power supply	100–240 V AC, 50/60 Hz		
Power consumption	240 W (Approx. 4 W in standby mode with fan stopped)		
LCD panel	4:3 aspect ratio		
Panel size	0.6″ (15.24 mm) diagonal		
Display method	Transparent LCD panel (x 3, R/G/B)		
Drive method	Active matrix		
Pixels	786,432 (1,024 x 768) x 3, total of 2,359,296 pixels		480,000 (800 x 600) x 3, total of 1,440,000 pixels
Pixel configuration	Stripe		
Lens	Manual zoom (1:1–1:1.2), manual focus, F 1.6 –1.9, f 18.8– 22.6 mm		
Lamp	165 W UHM™ lamp		
Colours	Full colour (16,777,216 colours)		
Brightness	2,000 lumens		
Contrast	400:1*1 (full on/full off)		
Scanning frequency			
RGB	Horizontal: 15–91 kHz, Vertical: 50–85 Hz		
YP_BP_R	480i (525i): f_H 15.75 kHz; f_V 60 Hz, 480p (525p): f_H 31.50 kHz; f_V 60 Hz 576i (625i): f_H 15.63 kHz; f_V 50 Hz, 576p (625p): f_H 31.25 kHz; f_V 50 Hz 720p (750p): f_H 45.00 kHz; f_V 60 Hz, 1080i (1125i): f_H 33.75 kHz; f_V 60 Hz, 1080i (1125i): f_H 28.125 kHz; f_V 50 Hz		
S-Video/Video	NTSC, NTSC4.43, PAL-M, PAL60: f_H 15.75 kHz; f_V 60 Hz, PAL, SECAM, PAL-N: f_H 15.63 kHz; f_V 50 Hz		
Projection size	33–300 inches/838–7,620 mm diagonally		
Throw distance	1.1 m–11.1 m (3′7″–36′5″)		1.1 m–10.9 m (3′7″–35′9″)
Optical axis shift	6:1 (fixed)		
Keystone correction range	Vertical: ±30°		
On-screen menu	17 languages: English, French, German, Spanish, Italian, Korean, Russian, Chinese, Japanese, Swedish, Norwegian, Danish, Portuguese, Polish, Hungarian, Czech, and Thai		
Installation	Front/rear ceiling/desk (menu selection)		
Built-in speakers	4 x 2 cm x 1 (oval), 1.0 W (monaural) output power		
Terminals			
COMPUTER 1 IN	D-sub HD 15-pin x 1		
COMPUTER 2 IN/1 OUT	D-sub HD 15-pin x 1 (input/output selectable using on-screen menu)		
VIDEO IN	RCA pin x 1		
S-VIDEO IN	Mini DIN 4-pin x 1		
AUDIO IN	RCA (L-R) x 1 (for VIDEO/S-VIDEO)		
COMPUTER AUDIO IN	M3 (stereo) x 1 (for COMPUTER 1 and COMPUTER 2)		
VARIABLE AUDIO OUT	M3 (stereo) x 1		
SERIAL	Mini DIN 8-pin x 1 (RS-232C)		
Power cord length	2 m (6′7″)		
Cabinet material	Moulded material (PC + ABS)		
Dimensions*2 (W x H x D)	297 x 57 x 210 mm (11-11/16″ x 2-7/32″ x 8-1/4″)		
Weight	1.9 kg (4.2 lbs.)	1.8 kg (4.0 lbs.)	
Operating environment	Temperature: 0°–40°C (32°–104°F), Humidity: 20%–80% (no condensation)		
Remote Control Unit			
Power supply	3 V DC (AA battery x 2)		
Operation range*3	Approx. 15 m (49′3″) when operated from directly in front of the signal receptor		
Dimensions (W x H x D)	48 x 163 x 24.5 mm (1-7/8″ x 6-13/32″ x 31/32″)		
Weight	117 g (4.1 oz) (including batteries)		
Wireless LAN	IEEE802.11b/g	–	
Supplied accessories	Power cord, Wireless remote control, Batteries for remote control, VGA cable, Carrying bag, Wireless Manager ME 4.5 (CD-ROM)	Power cord, Wireless remote control, Batteries for remote control, VGA cable, Carrying bag	
Optional accessories	ET-LAB50 Replacement lamp unit, ET-PKB50 Ceiling mount bracket ET-ADSER Serial adapter (DIN 8-pin/D-sub 9-pin)		

*1: In AI mode. *2: Legs and protruding parts not included. *3: Operation range differs depending on the environment.

Dimensions



Unit: mm (inch)

Projection Distance

PT-LB51NTEA/LB51EA

Projection size (diagonal)	Projection distance (L) Min (wide)	Max (telephoto)	Height from the edge of screen to centre of lens (H)
0.84 m / 33″	– / –	1.1 m / 3.9′	0 – 0.07 m / 0 – 0.2′
1.02 m / 40″	1.2 m / 4.0′	1.4 m / 4.7′	0 – 0.09 m / 0 – 0.3′
1.27 m / 50″	1.6 m / 5.0′	1.8 m / 5.9′	0 – 0.11 m / 0 – 0.4′
1.52 m / 60″	1.9 m / 6.0′	2.1 m / 7.2′	0 – 0.13 m / 0 – 0.4′
1.78 m / 70″	2.2 m / 7.0′	2.5 m / 8.4′	0 – 0.15 m / 0 – 0.5′
2.03 m / 80″	2.5 m / 8.0′	2.9 m / 9.6′	0 – 0.17 m / 0 – 0.6′
2.29 m / 90″	2.8 m / 9.0′	3.3 m / 10.8′	0 – 0.19 m / 0 – 0.6′
2.54 m / 100″	3.1 m / 10.0′	3.6 m / 12.0′	0 – 0.21 m / 0 – 0.7′
3.05 m / 120″	3.7 m / 12.0′	4.4 m / 14.5′	0 – 0.25 m / 0 – 0.9′
3.81 m / 150″	4.6 m / 15.1′	5.5 m / 18.1′	0 – 0.32 m / 0 – 1.1′
5.08 m / 200″	6.2 m / 20.1′	7.3 m / 24.2′	0 – 0.42 m / 0 – 1.4′
6.35 m / 250″	7.7 m / 25.1′	9.2 m / 30.3′	0 – 0.53 m / 0 – 1.8′
7.62 m / 300″	9.2 m / 30.2′	11.1 m / 36.4′	0 – 0.64 m / 0 – 2.1′

PT-LB51SEA

Projection size (diagonal)	Projection distance (L) Min (wide)	Max (telephoto)	Height from the edge of screen to centre of lens (H)
0.84 m / 33″	– / –	1.1 m / 3.8′	0 – 0.07 m / 0 – 0.2′
1.02 m / 40″	1.2 m / 3.9′	1.4 m / 4.6′	0 – 0.09 m / 0 – 0.3′
1.27 m / 50″	1.5 m / 4.9′	1.8 m / 5.9′	0 – 0.11 m / 0 – 0.4′
1.52 m / 60″	1.8 m / 5.9′	2.1 m / 7.1′	0 – 0.13 m / 0 – 0.4′
1.78 m / 70″	2.1 m / 6.9′	2.5 m / 8.3′	0 – 0.15 m / 0 – 0.5′
2.03 m / 80″	2.5 m / 7.9′	2.9 m / 9.5′	0 – 0.17 m / 0 – 0.6′
2.29 m / 90″	2.8 m / 8.9′	3.2 m / 10.7′	0 – 0.20 m / 0 – 0.6′
2.54 m / 100″	3.1 m / 9.9′	3.6 m / 11.9′	0 – 0.22 m / 0 – 0.7′
3.05 m / 120″	3.7 m / 11.9′	4.3 m / 14.3′	0 – 0.26 m / 0 – 0.9′
3.81 m / 150″	4.6 m / 14.9′	5.4 m / 17.9′	0 – 0.33 m / 0 – 1.1′
5.08 m / 200″	6.1 m / 19.9′	7.3 m / 24.0′	0 – 0.44 m / 0 – 1.4′
6.35 m / 250″	7.6 m / 24.9′	9.1 m / 30.0′	0 – 0.54 m / 0 – 1.8′
7.62 m / 300″	9.1 m / 29.9′	10.9 m / 36.0′	0 – 0.65 m / 0 – 2.1′

Optional Accessories

Replacement lamp unit: ET-LAB50

Ceiling mount bracket: ET-PKB50

To use network functions, a PC is required that meets the conditions given below:

OS: Microsoft® Windows® 2000 Professional, Windows® XP Professional, Windows® XP Home Edition, Windows Vista™ Ultimate 32-bit, Windows Vista™ Business 32-bit, Windows Vista™ Home Premium 32-bit, Windows Vista™ Home Basic 32-bit, Apple Mac OS X 10.4

NOTE: Some functions are not available with Windows Vista™ and Mac OS X.

Web browser: Windows®: Internet Explorer 6.0 or later, or Netscape Communicator 7.0 or later. Macintosh: Safari 2.0 or later

CPU: Windows®: Intel® Pentium® III or higher, or other compatible processor (800 MHz or higher is recommended). Macintosh: PowerPC G4 with 800 MHz or more, or Intel® Core™ with 1.8 GHz or more.

Memory: 256 MB or more (Macintosh: 512 MB or more is recommended)

Free hard disk space: 60 MB or more

CD-ROM drive: CD-ROM drive or DVD drive

Wireless LAN: IEEE 802.11b/g compatible (built-in wireless LAN system or external IEEE 802.11b/g LAN card must be installed and running normally.)

NOTE: Some IEEE 802.11g/b wireless LAN may not allow connection to the projector.

Visit the **Projectors Global Web Site** shown below for the latest information.

NOTES ON USE

- 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.
- The brightness of the lamp will gradually decrease with use.
- The projector includes consumable parts. The frequency of replacement for the lamp and other consumable parts will increase if the projector is subjected to extended, continuous use. For details, please consult a service representative.

Ecology-Conscious Design

Panasonic works from every angle to minimise environmental impact in the product design, production and delivery processes, and in the performance of the product itself over its life cycle. The PT-LB51 series projectors reflect the following ecological considerations.

- 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.

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Projectors Global Web Site
http://panasonic.co.jp/pavc/global/projector

JQA-1617

EMS Accreditation RE 009

051

PT-LB51NTEA2-07JUL20K Printed in Japan.

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PT-D7700E-K
DLP Projector

- 1400 x 1050 pixels (SXGA+) resolution 3-chip DLP technology
- 7000 ANSI dual lamp system with 4000:1 contrast
- Dustproof optical block with Liquid Cooling System
- Optional lenses and input boards
- Built-in Edge Blending and Colour Matching

Flexible high end 3-chip DLP projector with native 16:9 resolution

DLP Device

Device	0.95" DMD x3
Pixels	1,470,000 (1,400 x 1,050) x3

Lens

Type	Optional

Lamp

Type	300 W UHM x 2

Lamplife [hours]

High mode	1500.0
Low mode	2000.0

Screen

Size [mm]

Minimum	1800.0
Maximum	15200.0

Projection Distance [m]

Minimum	1.0

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Maximum	184.0
Pixels	1,470,000 (1,400 x 1,050) x 3
Colours	Full colour (16,777,216 colours)
Colour System	PAL, PAL-M, PAL-N, PAL 60, SECAM, NTSC, NTSC 4.43
Brightness (lumens)	7000.0
Contrast (high mode)	4000:1

Resolution

Native	1400 x 1050 pixels
RGB	1400 x 1050 pixels
Video	560 TV lines

Terminals

DVI-D	yes
HDMI	no
RGB In	yes
RGB Out	no
Composite Video	yes
S-Video	yes
SCART	no
Audio In	no
Audio Out	no
Serial	no
RS232 In	yes
RS232 Out	yes
Remote In	yes
USB Mouse	no

Expansion Slots

LAN Card Slot	no
SD Memory Card Slot	no
USB Slot	no
Keystone Correction Range	±40° (with ET-D75LE2)

Scanning Frequency

RGB	fH 15-100 kHz, fV 24-120 Hz, Dot clock 20-162 MHz
YPaPr	480i: fH 15.75 kHz; fV 60 Hz TO 1080/25p: fH 28.13 kHz; fV 25 Hz,
Optical Axis Shift	Powered; horizontal ±30%, vertical ±50%
On-screen menu	9 languages: English, French, German, Spanish, Italian, Russian, Chinese, Japanese, Korean
Installation	Front/rear, ceiling/floor, (menu selection)

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General

Power Supply	220-240 V AC, 50/60 Hz
Power Cord Length [m]	2.5

Dimensions [mm]

Width	530.0
Height	200.0
Depth	540.0
Weight [kg]	22.0
Power Consumption [w]	800.0

Operating Environment

Temperature	0°-40°C (32°-104°F), 0°-35°C (32°-95°F) (dual lamp, lamp power: high)
Humidity	10%-80% (no condensation)

Remote Control Unit

Standard Accessories	Wireless/wired remote control unit

Area of usage

At Home	no
Public Display	yes
In the office	yes
Rental - Staging	yes
For Education	yes
Digital Cinema	yes

Ambient Light Condition

Bright	yes
Average	yes
Dark	yes

Diagonal [mm]

Base Diagonal	610.0
Minimum Diagonal	0.0
Maximum Diagonal	15200.0

Throw Distance Calculator

Ratio Width	4.0
Ratio Height	3.0
Lumen	7000.0