

Panasonic
ideas for life

PT-D5600U
PT-D5600UL
DLP®-Based Projector



A New Dimension in Reliability. A New Experience in Picture Quality.



5 000lm

XGA



PREMIUM RELIABILITY



Panasonic system projectors have opened another new horizon. Their advanced imaging technologies have further enhanced the high image quality of the intricate DLP® chip. A full 5000 lumens of brightness makes it possible to render vivid images in a variety of spaces. Original Panasonic technologies, such as our popular dual lamp system and liquid-cooling system, provide an ultra-reliable design to meet requests for 24/7* operation.

* Refer to "Operating the Projector Continuously" in the NOTES ON USE section on the back cover.



Projection of bright, high-quality images in large spaces such as halls, conference rooms, classrooms, control centers, and churches.

Conference rooms



Classrooms



Control rooms

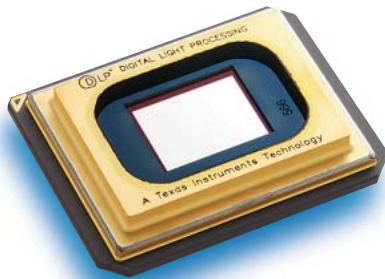


Churches



Panasonic system projector

for bright, high-quality image projection in large spaces.



Panasonic system projector for stable performance over extended time periods. Panasonic has further improved the image quality.



High 2 000:1 Contrast Ratio

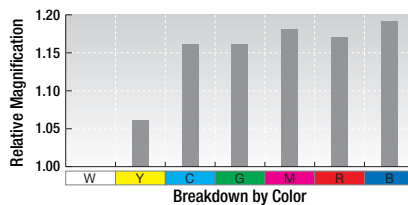
Even though the PT-D5600U/D5600UL is a 1-chip DLP® projector, its liquid-cooling system and dual-lamp optical system team up to give it a brightness of 5 000 lumens. This enables bright, large-screen projection even in well-lit condition.

This high-contrast combines with an outstanding brightness for crisp, high-resolution images in virtually any viewing environment.

Vivid Color Control

A new and unique control technology is used to maximize the color segment areas of the color wheel. Compared with our previous model, the brightness of each color is increased by an average of about 15%. This results in sharper, clearer color reproduction.

Luminance Comparison by Color-Wheel Color



*Calculated by setting the previous model value to 1.00.

3D Color Management System

Combined with Vivid Color Control, this greatly improves the reproduction of natural midtones.

Previous model

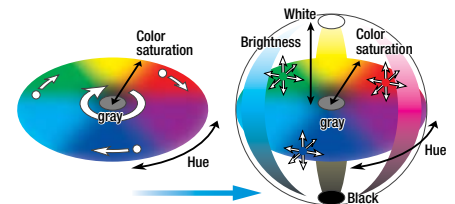
2D Color Correction

Corrects only color saturation and hue. The correction range is narrow, and the correction affects other colors.

D5600

3D Color Correction

Corrects color saturation, hue, and brightness. Correction is done automatically by the processor, resulting in natural image reproduction.



The Reliability Value Chain Supported by Panasonic Technology

Protecting

Withstands ambient temperatures up to 45°C, and protects against dust problems.

New Cooling Structure

In order to further enhance the cooling efficiency, we completely revised the placement of various internal components and combined this with our popular cooling system to enable use in temperatures up to 45°C. This allows use in a wider variety of environments, and keeps the operation more stable even in harsh conditions.

µ Cut Filter ¹

(World's First in a High-Brightness Projector*)

*As of May, 2006

A new filter in the air intake section traps dust particles that are 10 microns*¹ or larger. By capturing approximately 7 times*² as much dust as our previous filters, it guards against optical blocks and reduces the penetration of dust into to the interior to provide stable operation by, for example, preventing drops in brightness.



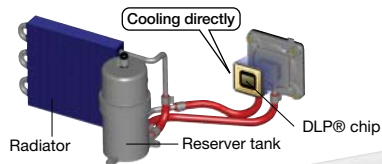
µ Cut Filter

*1 10-micron dust = lint, pollen, etc.

*2 According to Panasonic in-house data

Liquid-cooling System ²

Panasonic's original liquid-cooling system directly cools the DLP® chip, which extends the PT-D5600U/D5600UL's performances and attains a high level of reliability.



Dustproof Design with Sealed Optical Block ³

The effect of dust has been minimized by completely sealing the optical block. The dust-free design helps ensure that this DLP® projector will continue to deliver crisp, sharp, high-resolution images over an extended service life.

Dust-Tight Cover ⁴

The lens unit opening is fitted with rubber sealing.



Monitoring

A more powerful sensing performance predicts problems with high accuracy.

Airflow Sensor ⁵

An airflow sensor has been added to the air intake section to quickly detect reductions in the intake airflow due to a clogged filter or other reasons. Also, a temperature sensor has been mounted to the exhaust section in addition to the existing ones at the air intake section and DLP® chip.

Reporting

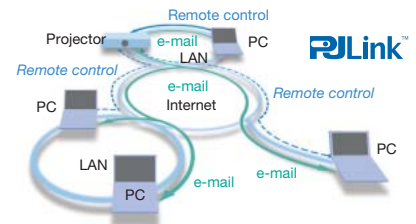
The user is alerted instantly if an operating problem should occur.

Warning LED and On-Screen Display ⁷

The projector body is equipped with a temperature alarm LED and a burnt lamp (for lamp 1/lamp 2) alarm LED. Information on the location of the error is also given in the on-screen display.

Web Browser Control/ Monitoring and E-mail Message Alert

Anybody can operate the PT-D5600U/D5600UL by remote control or monitor its status over a LAN network, because it is all done using the computer's familiar Web browser. Furthermore, the PT-D5600U/D5600UL sends an E-mail message to notify the operator when an error has occurred, or a lamp needs to be replaced.



Fail-Safe Operation

Projection can still continue even when a lamp burns out.

Dual Lamp System ⁸

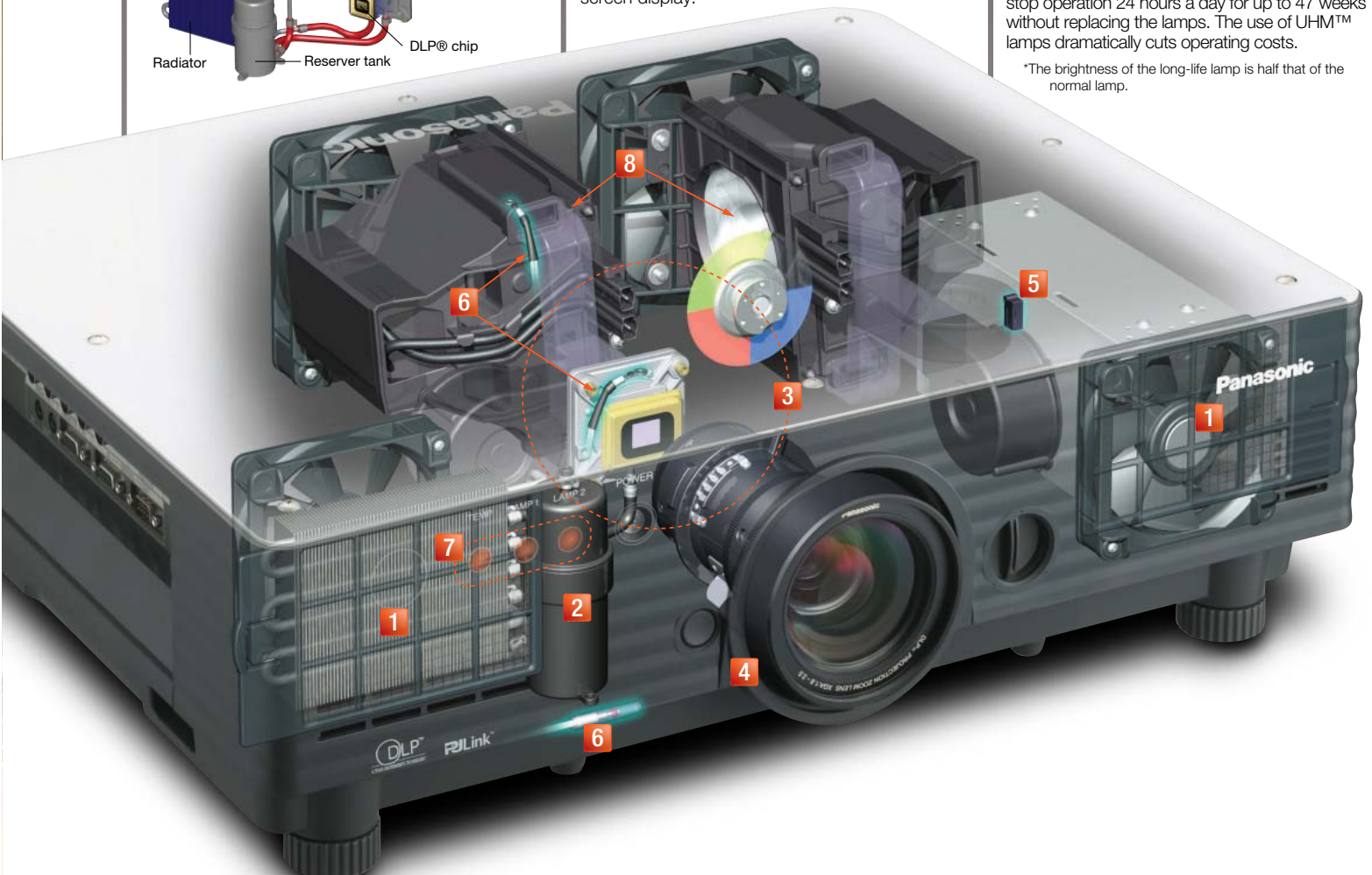
The use of two lamp systems increases brightness and eliminates the need to interrupt a presentation if a lamp burns out (in dual lamp operation mode).



Optional Long-Life Lamp

A long-life lamp that stretches lamp life to 4 000 hours is available as an option. In single lamp operation mode, the lamp relay function allows non-stop operation 24 hours a day for up to 47 weeks without replacing the lamps. The use of UHM™ lamps dramatically cuts operating costs.

*The brightness of the long-life lamp is half that of the normal lamp.



Greatly Refined Functions and Installation Ease



High Picture Quality

High Uniformity of Brightness and Color

The PT-D5600U/D5600UL's outstanding brightness and contrast ratio assures high uniformity of brightness and color, resulting in vivid and natural image.

Progressive Cinema Scan (3/2 Pull-down)

This interlace/progressive conversion technology automatically detects when the input signal is derived from filmed material and selects the optimum progressive processing method to assure faithful reproduction of the original image.

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.

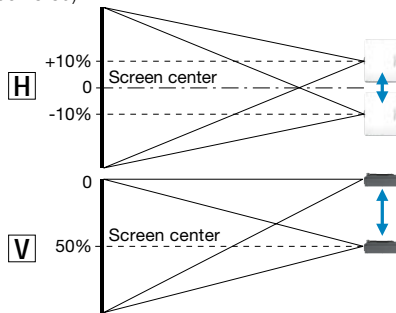
Flexible System Applications

Lens-Centered Design

A lens-centered, symmetrical design provides flexible system layout, eliminating the need for any special considerations when planning the installation site.

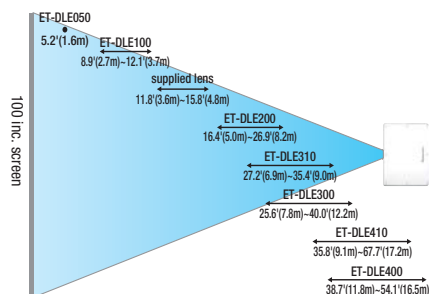
Horizontal/Vertical Lens Shift

A wide adjustment range of the horizontal/vertical lens shift assures distortion free images and adds convenience and versatility. (Horizontal : manual, Vertical : powered)



Optional Lenses for Various Venues

Seven optional lenses with different throw distances are available in addition to the supplied lens. These powered zoom/focus lenses enable the projectors to perform superbly in an array of projection environments.



*Projection Range Example

Easy Lens Replacement

The PT-D5600U/D5600UL uses the bayonet system, so lenses attach and detach with one-touch ease.



Multiple Terminals Including DVI-D

The PT-D5600U/D5600UL has an array of terminals—two RGB inputs including a 5-BNC connector, serial in/out, one S-video inputs, two remote in, one remote out, DVI-D and control capability—to support a broad range of projection needs HDCP (High-Bandwidth Digital Content Protection) compliant.



Control Panel and Wireless Remote Control

The rear control panel allows for easy operation when the PT-D5600U/D5600UL is set on a desk or floor. A Multi-function wireless remote control with mouse control also comes supplied with each projector.*

*Requires the optional ET-RMRC2 wireless mouse receiver



Quiet Operation, 29dB*

The unique Panasonic silent design ensures that the audience is not disturbed by projector noise.

* with lamp mode:low

Other Valuable Features

Mechanical Lens Shutter

A mechanical lens shutter minimizes annoying light leakage when the PT-D5600U/D5600UL is on standby or temporarily not in use, such as during a meeting.

Direct Power Off

Built-in capacitor provides power to cool the internal parts. This means that you can switch off the room's main power as soon as the presentation ends. PT-D5600U/D5600UL doesn't make you wait around and helps minimize lamp damage.

Anti-Theft Features with Chain Opening

Anti-theft features help protect the PT-D5600U/D5600UL from unauthorized use, including a password protection function and an operation key lock function that disables the control buttons on the main unit. It also features a Kensington lock and an additional security chain opening.

Flexible Angle Setting

The PT-D5600U/D5600UL can be rotated vertically. This means you can install it at any up-and-down angle you wish to accommodate different installation conditions.



Easy Replacement of Dust Filter and Lamp

Dust filter is replaced from the side and lamps are replaced from the back panel. Both of them are replaced very easily even if PT-D5600U/D5600UL is installed.

Others

- 6 colors-matching function (red, green, blue, cyan, magenta, yellow)
- ID assignment for up to 65 units
- Coordinated group control for up to 26 groups (A-Z)
- Digital vertical keystone correction
- 3x digital zoom
- Built-in test pattern
- Selectable 9-language on-screen menu (English, German, French, Spanish, Italian, Russian, Japanese, Chinese, Korean)

The PT-D5600UL delivers the same performance as the PT-D5600U, but comes without lens. Combine it with an optional lens to get the exact performance you need according to usage and operating conditions.

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-D5600U/D5600UL reflects the following ecological considerations.

- Lead-free solder is used to mount components to the printed circuit boards.
- The non-coated cabinet enables easy recycling.
- Lamp power switching further reduces power consumption.
- Auto Power Save activates standby mode when no signal is input.
- The packing case and operating manual are made from recycled paper.

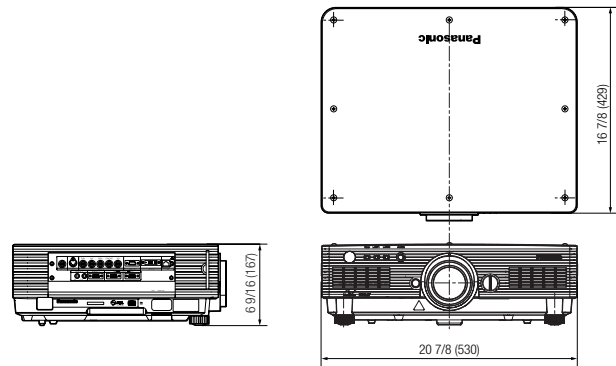
Specifications

System	DLP® system
Device	0.7" (diagonal) DLP® (x 1), 4:3
Pixels	786,432 (1,024 x 768) x 1
Lamp	300 W UHM™ lamp x 2 (Dual Lamp System)
Brightness (normal lamp)	5,000 lumens (dual lamp, high power mode)
Brightness (long life lamp)	2,500 lumens (dual lamp)
Contrast ratio	2,000:1 (full on/full off, contrast mode: high)
Resolution	
RGB	1,024 x 768 pixels
Video	560 TV lines
Lens	
PT-D5600U	Powered zoom/focus lens (1:1.8-1:2.5) F 1.7-2.0, f 25.6-33.8 mm
PT-D5600UL	Optional powered zoom/focus lenses
Screen size	50 - 600 inches
Lens shift	Vertical, horizontal
RGB input scanning frequency	fr 15-91 kHz, fv 50-85 Hz Dot clock 108 MHz or lower
Component signal	480i, 480p, 576i, 576p, 720/60p, 720/50p, 1035/60i, 1080/60i, 1080/50i
Video signal	NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M, PAL-N

Terminals	
VIDEO IN	BNC
S-VIDEO IN	Mini DIN 4-pin
RGB1/YPbPr IN	BNC x 5
RGB2 IN	D-sub HD 15-pin
DVI-D IN	24 pin
RS-232C IN	D-sub 9-pin female
RS-232C OUT	D-sub 9-pin male
REMOTE 1 IN	M3 jack
REMOTE 1 OUT	M3 jack
REMOTE 2 IN	D-sub 9-pin female (parallel)
LAN	RJ-45 (10 Base-T/100 Base-TX)
Keystone correction range	±30° (with standard lens)
Installation	Front/rear, ceiling/floor
Power cord length	3.0m (9.9')
Power supply	120 V AC, 50/60Hz
Power consumption	770 W (770 VA) (10 W during standby mode with fan stopped)
Dimensions (W x H x D)	20-7/8" x 6-9/16" x 16-7/8" (530 x 167 x 429 mm) (without lens)
Weight	
PT-D5600U	32.0 lbs (14.5 kg) with supplied lens
PT-D5600UL	30.2 lbs (13.7 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)

Dimensions

unit: inch [mm]



Optional accessories

 <p>Normal Lamp Replacement Unit ET-LAD55 ET-LAD55W (twin pack)</p>	 <p>Zoom Lens (1.3-1.8:1) ET-DLE100 Zoom Lens (2.5-4.0:1) ET-DLE200 Zoom Lens (3.7-5.7:1) ET-DLE300 Zoom Lens (3.4-4.5:1) ET-DLE310 Zoom Lens (5.7-8.0:1) ET-DLE400 Zoom Lens (4.5-8.4:1) ET-DLE410 Fixed Focus Lens (0.8:1) ET-DLE050</p>	 <p>Wireless Receiver ET-RMRC2</p>
 <p>Long Life Lamp Replacement Unit ET-LAD55L ET-LAD55LW (twin pack)</p>		<p>Ceiling Mount Bracket ET-PKD56H</p>
		<p>Low-Ceiling Mount Bracket ET-PKD55S</p>

Projection distance

Screen size (4:3)	Throw distance															
	With ET-DLE050 0.8:1		With ET-DLE100 1.3-1.8:1		With supplied lens 1.8-2.5:1		With ET-DLE200 2.5-4.0:1		With ET-DLE300 3.7-5.7:1		With ET-DLE310 3.4-4.5:1		With ET-DLE400 5.7-8.0:1		With ET-DLE410 4.5-8.4:1	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
50"(4.2') 1.3 m	2.60' 0.79 m	4.38' 1.33 m	5.94' 1.81 m	5.85' 1.79 m	7.79' 2.38 m	8.05' 2.45 m	13.26' 4.04 m	12.59' 3.84 m	19.78' 6.03 m	11.08' 3.38 m	14.58' 4.44 m	19.37' 5.9 m	27.21' 8.33 m	14.74' 4.49 m	27.93' 8.51 m	
80"(6.7') 2.0 m	4.24' 1.29 m	7.09' 2.16 m	9.60' 2.93 m	9.50' 2.9 m	12.59' 3.84 m	13.01' 3.97 m	21.37' 6.52 m	20.41' 6.22 m	31.90' 9.73 m	17.94' 5.47 m	23.53' 7.17 m	30.94' 9.43 m	43.40' 13.23 m	23.85' 7.27 m	44.95' 13.7 m	
100"(8.3') 2.5 m	5.33' 1.62 m	8.90' 2.71 m	12.04' 3.67 m	11.92' 3.64 m	15.79' 4.82 m	16.32' 4.97 m	26.78' 8.16 m	25.62' 7.81 m	39.98' 12.19 m	22.51' 6.86 m	29.50' 8.99 m	38.65' 11.78 m	54.20' 16.53 m	29.92' 9.12 m	56.30' 17.16 m	
150"(12.5) 3.8 m	8.05' 2.45 m	13.43' 4.09 m	18.15' 5.53 m	17.99' 5.49 m	23.80' 7.26 m	24.58' 7.49 m	40.29' 12.28 m	38.66' 11.79 m	60.18' 18.35 m	33.94' 10.35 m	44.43' 13.54 m	57.94' 17.66 m	81.20' 24.76 m	45.11' 13.75 m	84.67' 25.81 m	
200"(16.7') 5.1 m	10.77' 3.28 m	17.96' 5.47 m	24.25' 7.39 m	24.06' 7.34 m	31.80' 9.70 m	32.85' 10.01 m	53.81' 16.4 m	51.70' 15.76 m	80.39' 24.51 m	45.37' 13.83 m	59.35' 18.09 m	77.23' 23.54 m	108.19' 32.99 m	60.29' 18.38 m	113.04' 34.46 m	
300"(25.0') 7.6 m	-	27.01' 8.23 m	36.45' 11.11 m	36.19' 11.04 m	47.81' 14.58 m	49.38' 15.05 m	80.83' 24.64 m	77.78' 23.71 m	120.80' 36.83 m	68.24' 20.80 m	89.20' 27.19 m	115.80' 35.3 m	162.18' 49.45 m	90.67' 27.64 m	169.79' 51.76 m	
400"(33.3') 1.3 m	-	36.06' 10.99 m	48.65' 14.83 m	48.33' 14.74 m	63.81' 19.46 m	65.91' 20.09 m	107.86' 32.88 m	103.85' 31.66 m	161.21' 49.15 m	91.10' 27.77 m	119.05' 36.29 m	154.37' 47.06 m	216.17' 65.91 m	121.04' 36.90 m	226.53' 69.06 m	
500"(41.7') 12.7 m	-	45.12' 13.75 m	60.85' 18.55 m	60.47' 18.44 m	79.82' 24.34 m	82.44' 25.13 m	134.89' 41.12 m	129.93' 39.61 m	201.62' 61.47 m	113.96' 34.74 m	148.89' 45.39 m	192.94' 58.82 m	270.16' 82.37 m	151.41' 46.16 m	283.28' 86.36 m	
600"(50.0') 15.2 m	-	54.17' 16.51 m	73.05' 22.27 m	72.60' 22.14 m	95.83' 29.22 m	98.97' 30.17 m	161.91' 49.36 m	156.00' 47.56 m	242.03' 73.79 m	136.82' 41.71 m	178.74' 54.49 m	231.52' 70.58 m	324.15' 98.83 m	181.79' 55.42 m	340.02' 103.66 m	

NOTES ON USE

Notes on Projector Placement and Operation:

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 operating.
- Make sure there is an unobstructed space of 500 mm 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 below between them. These space requirements also apply to installations where only one projector unit is operating at one time and the other unit is used as a backup.
- If the projector is placed in a box or enclosure, ensure the temperature of the air surrounding the projector is between 0°C and 35°C. 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.

Operating the Projector Continuously:

- 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 day if using the dual-lamp mode.
- The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.

- 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.

Panasonic®

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