# Panasonic ideas for life

PT-**DZ6710U** PT-**DZ6710UL** PT-**DZ6700U** PT-**DZ6700UL** 

DLP<sup>™</sup> Based Projecto



Capturing attention with brilliant pictures and diverse image-rendering capabilities





# Full high-resolution **WUXGA** compatibility.

# A wide array of unique image-processing technologies combine to produce realistic, lifelike images.

Panasonic's PT-DZ6710U/DZ6710UL\* and PT-DZ6700U/DZ6700UL\* 1-chip DLP™ projectors now offer even brighter and more vivid images with full high definition resolution. Along with the RGB Booster, which combines high brightness and superb color reproduction, a host of technologies work together to enhance image quality. The Dual-Lamp System and Auto Cleaning Filter extend operating stability and contribute to reliability. The PT-DZ6710U/DZ6710UL include Geometric Adjustment for

HD-SDI signal compatibility. All models offer high image quality and easy system expansion to increase

projecting images onto curved screens, as well as standard

system integration flexibility.



#### **Vivid Picture Quality with High Brightness**

#### **RGB Booster Significantly Improves Color Reproduction**

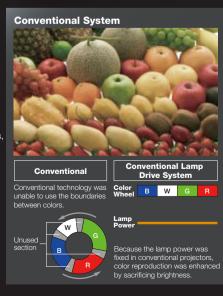
The RGB Booster achieves high image quality with levels of color reproduction (up to 145% that of conventional models) and brightness that make each color stand out. It combines Panasonic's proprietary Vivid Color Control technology with a newly engineered Lamp Modulation Drive System for a 1-chip DLP™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





## A host of system functions expand the possibilities for rendering creative images.

#### **Geometric Adjustment for Specially Shaped Screens**

#### PT-DZ6710U/DZ6710UL

This function adjusts the image for projection onto spherical, cylindrical and other specially shaped screens. You can make the adjustment easily using just the remote control, with no external equipment needed. Used together with the multi-screen support system, Geometric Adjustment expands your application possibilities, letting you create a wide range of image effects for digital signage, concerts, performances and other special events.



#### Multiple Terminals with HD-SDI Compatibility\*

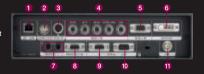
The PT-DZ6710U/DZ6700U has an array of terminals – two RGB inputs including a 5-BNC connector, a serial in/out terminal, one S-video input, two remote in terminals, one remote out terminal, one DVI-D (HDCP [High-Bandwidth Digital Content Protection] compliant), and control capability - to support a broad range of projection needs. Using the serial terminal (RS232C), it is possible to connect and operate AMX and Crestron control systems with ease. In addition, the PT-DZ6710U/ DZ6710UL accommodate the HD/SD-SDI input signals that are widely used in broadcasting.

\*PT-DZ6710U/DZ6710UL only

- 2 Video Input

- RGB 2 Input
  DVI-D (HDCP
  Compatible) Input
- ote 1 Input and Output

and DZ6710UL)



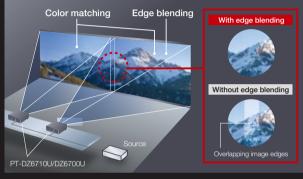
#### Flexible ±360° Installation

The PT-DZ6710U/ DZ6700U can be rotated vertically. This means you can install one at any up-and-down angle you want, to accommodate different installation conditions.





#### **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. The PC software assures easy,

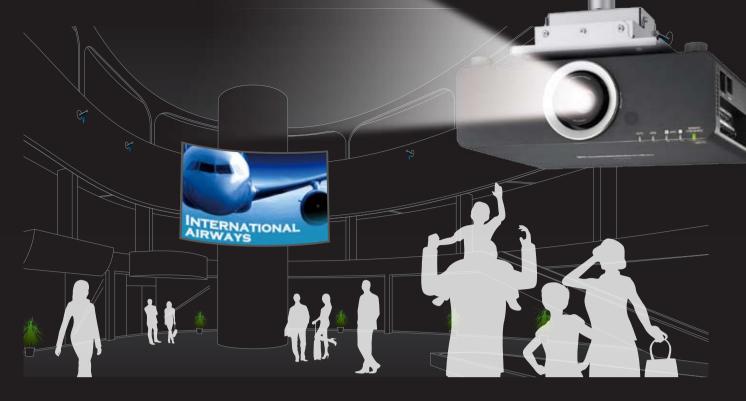
accurate control.

Multi-screen Processor

The PT-DZ6710U/DZ6700U can project large, multi-screen images without any additional equipment. Up to 100 units (10 x 10) can be edge-blended at a time.



The PT-DZ6710U/DZ6700U boasts superior image quality, flexible installation, and easy maintenance, making either model an ideal choice for use in classrooms, museums, conference rooms, and much more.



#### High Brightness 6,000 lm with New AC Lamp

Our newly-developed 300-watt AC lamps are used in the PT-DZ6710U/DZ6700U. The high-efficiency light convergence technology and independently developed color wheel work together to achieve the high brightness of 6,000 lm. Clear, crisp images are reproduced even in bright rooms.



#### 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. This problem becomes more significant when images require increasing levels of detail expression. Panasonic's System Daylight View 2 optimizes image quality to improve color perception of the projected image in bright rooms. Gamma curves and sharpness, in addition to conventional color correction are adjusted to bring a sense of sharpness to the entire screen and reproduce stunning images with life-like depth. This results in highly comfortable viewing even in bright lighting, and allows viewers to concentrate more easily on the images.





### **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.



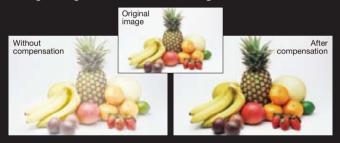
Conventional sharpness control: Sharpness is applied uniformly, which can cause a halo or ring effect and diminish the sense of deoth.



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

#### **3D Color Management System**

To increase visual impact, projector images are often viewed from a comparatively close position relative to the screen size. The characteristics of the human eye, however, tend to cause changes in colors when images are viewed close-up on a large screen. Changes in color saturation, hue, and brightness differ from color to color, and conventional projectors were not able to make the appropriate corrections. 3D Color Management makes these corrections to produce accurate colors that are very close to the original images even when viewed on a large screen.



#### **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.

#### **Full 10-bit Picture Processing**

The use of a full 10-bit image processing system provides smooth tonal expression. For example, skin tones appear natural and true to life.

#### **More Effective Noise Reduction**

Images are noticeably clearer, thanks to higher-performance frame noise reduction, which lowers image graininess, and improved MPEG noise reduction, which suppresses the block noise and mosquito noise that are common in fast-action scenes.

#### Progressive Cinema Scan (3/2 Pulldown)

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.

#### **Easy Maintenance and Superior Reliability**

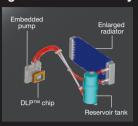
### **Dual-Lamp System Prevents Image Interruptions**

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

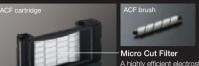
Panasonic's original liquid cooling system directly cools the DLP™ chip, which extends PT-DZ6710U/DZ6700U performance and attains a high level of reliability. It also enables operation in temperatures up to 113°F/45°C for use in a wider variety of environments, and maintains a more stable performance even in harsh conditions while keeping the operating sound down.



#### Auto Cleaning Filter Reduces Maintenance Hassles



Panasonic's proprietary Auto Cleaning Filter (ACF) automatically exposes a clean filter surface when it senses that the filter is clogged. The ACF also brushes away dust that adheres to the filter, which helps prevent clogging that can impair operation or cause malfunction. This helps maintain the highly efficient electrostatic filter, the Micro Cut Filter's superior dust-collecting performance. As a result, the filter does not need to be replaced for over 10,000 hours\*, greatly reducing the hassle of maintenance.



A highly efficient electrostatic filter in the air intake section traps dust particles that are 1 micron or larger. It guards the optical block and reduces the penetration of dust into the interior to provide stable operation.

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

#### **Dustproof Design with Sealed Optical Block**

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.

#### **System Integration Flexibility**

#### Side-by-Side Function

The PT-DZ6710U/DZ6700U 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.

\*This function is not effective for some source combinations.



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

#### A Wide Selection of Lenses (optional)

Choose from a wide lineup of lenses for your system, including short-throw, long-throw zoom and fixed-throw lenses for rear projection use. The additional lenses make it easy to adapt your projector to the installation site. The lenses attach and detach with one-touch ease.



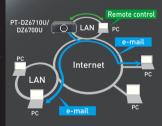
#### Web Browser Control/Monitoring and E-mail Message Alert

The PT-DZ6710U/DZ6700U 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 RJLink®

The LAN terminals support PJLink™ class 1 connection. Control with the same specifications is also possible when used in a multi-projector system with projectors of another brand.



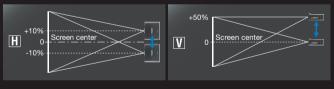
#### Multi Projector Monitoring & Control Software

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



#### **Powered Vertical/Horizontal Lens Shift**

A wide adjustment range of the horizontal/vertical lens shift assures virtually distortion-free images and adds convenience and versatility. It lets you easily make adjustments with the remote control, making it optimal for ceiling-mounted applications.



#### Standby Mode: eco\*

The PT-DZ6710U/DZ6700U has attained a low stand-by power level of 0.2 W, which is a top-class level for the projector industry. It also helps to slash running costs, and reduces environmental impact.

 $^{\star}$  During standby mode eco operation, network functions such as standby-on from a LAN network and the serial output terminal will not operate.

#### **Other Features**

- Mechanical Lens Shutter30m Long RangeWireless 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-DZ6710U/DZ6710UL/DZ6700U/DZ6700UL 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.
- Stand-by power consumption of only 0.2 W has been achieved.

#### Specifications

Models		PT-DZ6710U/DZ6710UL	PT-DZ6700U/DZ6700UL					
	<u> </u>	1 11 1 11						
Power supply		120 V AC 50/60 Hz						
Power consumption		820 W (880 VA), Standby mode eco*1: 0.2W Standby mode normal: 8 W (Both with fan stopped)						
DLP™ chip	Panel size	0.67" diagonal (16:10 aspect ratio)						
	Display method	DLP™ chip x 1, DLP™ system						
	Pixels	2,304,000 (1,920 x 1,200) x 1, total of 2,304,000 pixels						
Lens	PT-DZ6710U/DZ6700U	Powered zoom/focus lenses (1.8–2.4:1), F 1.7–2.0, f 26.8–35.7 mm						
	PT-DZ6710UL/DZ6700UL	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						
Brightness*2		6,000 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		1,920 x 1,200 pixels						
Scanning	RGB / DVI-D	Horizontal: 15–91 kHz, Vertical: 50–85 Hz, Dot clock: 162 MHz or low						
frequency	YPBPR (YCBCR)	525i (480i), 625i (576i), 525p (480p), 625p (576p), 750 (720)/60p, 750 (720)/50p, 1035/60i, 1125 (1080)/60i, 1125 (1080)/50i,						
	S-Video / Video	1080/25p, 1080/24p, 1080/24sF, 1080/30p, 1080/60p, 1080/50p						
	5-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: +50% (powered), horizontal: ±10% (powered)						
Keystone correction range		Vertical: ±40° (±30° with the ET-DLE055)*4						
Installation		Ceiling/floor, front/rear						
Terminals*5	HD/SD-SDI IN	BNC	_					
	DVI-D IN	DVI-D 24-pin						
	RGB 1/YP <sub>B</sub> P <sub>R</sub> IN	BNC x 5						
	RGB 2/YPsPs IN	D-sub H	D 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 mate	rial	Molded plastic						
Dimensions	PT-DZ6710U/DZ6700U	19-19/32" x 6-7/8" x 17-5/16" (498 mm x 175 mm x 440 mm) (with supplied lens)						
(W x H x D)	PT-DZ6710UL/DZ6700UL	19-19/32" x 6-7/8" x 17" (498 mm :	x 175 mm x 432 mm) (without lens)					
Weight*6	PT-DZ6710U/DZ6700U	Approx. 35.3 lbs (16.0	kg) (with supplied lens)					
	PT-DZ6710UL/DZ6700UL	Approx. 33.5 lbs (15	5.2 kg) (without lens)					
Operating temperature		0–45 °C (32–113 °F)						
Operating humidity		20-80 % (no condensation)						
Supplied accessories		Power cord, Wireless/wired remote control unit, Batteries for remote control (x 2), Wire rope						

<sup>&</sup>quot;1 During eco stand-by mode operation, network functions such as standby- on from a LPN network and the senal output terminal will not operate.

22 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards." Si Brightness: 3,000 Lumens 
'4 PT-DZ6710U/D26710UL: When using only the KEYSTONE correction of the Geometric Adjustment function, keystone range: vertical ±40", horizontal ±15" (vertical ±30" and horizontal ±15" with the ET-DLE350, When using both the KEYSTONE and CURVED corrections of the Geometric Adjustment function, keystone range: vertical ±5", horizontal ±5" (vertical ±10" and horizontal ±10" with the ET-DLE350, and vertical ±10" and horizontal ±15" with the ET-DLE450). "5 The HD/SYNC and VD inputs do not accept the tri-level sync signal. "6 Average value. May differ depending on models.

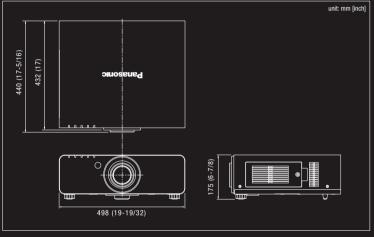
#### **Optional accessories**

Lens					
Zoom lens <b>ET-DLE150</b> Zoom le (2.3 – 3.9:1)	ens <b>ET-DLE250</b> Zoom lens <b>ET-DLE350</b> (3.6 – 5.4:1)	Zoom lens <b>ET-DLE450</b> Fixed focus lens <b>ET-DLE055</b> (5.4 – 8.6:1) Fixed focus lens <b>ET-DLE055</b>			
Lamp	Filter	Ceiling mount bracket			
Replacement lamp unit ET-LAD60 ET-LAD60W (twin pack)	Replacement filter unit ET-ACF100	ET-PKD56H (for high ceilings) ET-PKD55S (for low ceilings)			
M 1		ET-PKD55S			
		О ЕТ-РКО56Н			

#### **Projection distance**

Screen size (16:10)				Throw distance							
Diagonal image size	With ET-DLE150 1.3-1.9:1		With supplied lens		With ET-DLE250 2.3-3.6:1		With ET-DLE350 3.6-5.4:1		With ET-DLE450 5.4-8.6:1		With ET-DLE055
SIZE	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	0.8:1
50"	1,376mm 4.6'	2,013mm 6.7'	1,901mm 6.3'	2,571mm 8.5'	2,418mm 8.0'	3,865mm 12.7'	3,802mm 12.5'	5,815mm 19.1'	5,659mm 18.6'	9,123mm 30.0'	828mm 2.7'
80"	2,234mm 7.4'	3,251mm 10.7'	3,086mm 10.2'	4,158mm 13.7'	3,916mm 12.9'	6,232mm 20.5'	6,164mm 20.3'	9,384mm 30.8'	9,235mm 30.3'	14,777mm 48.5'	1,353mm 4.5'
100"	2,806mm 9.3'	4,076mm 13.4'	3,876mm 12.8'	5,215mm 17.2'	4,915mm 16.2'	7,810mm 25.7'	7,739mm 25.4'	11,764mm 38.6'	11,619mm 38.2'	18,546mm 60.9'	1,703mm 5.6'
150"	4,236mm 13.9'	6,139mm 20.2'	5,851mm 19.2'	7,860mm 25.8'	7,413mm 24.4'	11,754mm 38.6'	11,676mm 38.4'	17,713mm 58.2'	17,579mm 57.7'	27,968mm 91.8'	2,578mm 8.5'
200"	5,666mm 18.6'	8,202mm 27.0'	7,827mm 25.7'	10,504mm 34.5'	9,910mm 32.6'	15,699mm 51.6'	15,613mm 51.3'	23,662mm 77.7'	23,539mm 77.3'	37,391mm 122.7'	3,454mm 11.4'
300"	8,526mm 28.0'	12,327mm 40.5'	11,777mm 38.7'	15,793mm 51.9'	14,905mm 49.0'	23,588mm 77.4'	23,487mm 77.1'	35,560mm 116.7'	35,460mm 116.4'	56,236mm 184.6'	=
400"	11,386mm 37.4'	16,453mm 54.0'	15,728mm 51.7'	21,082mm 69.2'	19,900mm 65.3'	31,477mm 103.3'	31,361mm 102.9'	47,458mm 155.8'	47,380mm 155.5'	75,081mm 246.4'	=
500"	14,245mm 46.8'	20,579mm 67.6'	19,679mm 64.6'	26,371mm 86.6'	24,895mm 81.7'	39,366mm 129.2'	39,235mm 128.8'	59,356mm 194.8'	59,300mm 194.6'	93,926mm 308.2'	=
600"	17,105mm 56.2'	24,704mm 81.1'	23,629mm 77.6'	31,660mm 103.9'	29,890mm 98.1'	47,255mm 155.1'	47,109mm 154.6'	71,255mm 233.8'	71,221mm 233.7'	112,771mm 370.0'	
Screen	size (16:9)	1									
50"	1,416mm 4.7'	2,070mm 6.8'	1,956mm 6.5'	2,645mm 8.7'	2,487mm 8.2'	3,975mm 13.1'	3,911mm 12.9'	5,980mm 19.7'	5,824mm 19.2'	9,385mm 30.8	852mm 2.8'
80"	2,298mm 7.6'	3,343mm 11.0'	3,174mm 10.5'	4,275mm 14.1'	4,027mm 13.3'	6,407mm 21.1'	6,339mm 20.8'	9,649mm 31.7'	9,500mm 31.2'	15,196mm 49.9'	1,392mm 4.6'
100"	2,885mm 9.5'	4,191mm 13.8'	3,986mm 13.1'	5,362mm 17.6'	5,054mm 16.6'	8,029mm 26.4'	7,958mm 26.2'	12,094mm 39.7'	11,950mm 39.3'	19,070mm 62.6'	1,752mm 5.8'
150"	4,355mm 14.3'	6,311mm 20.8'	6,016mm 19.8'	8,080mm 26.6'	7,621mm 25.1'	12,083mm 39.7'	12,004mm 39.4'	18,209mm 59.8'	18,076mm 59.4'	28,754mm 94.4'	2,651mm 8.7'
200"	5,825mm 19.2'	8,431mm 27.7'	8,046mm 26.4'	10,798mm 35.5'	10,188mm 33.5'	16,137mm 53.0'	16,051mm 52.7'	24,323mm 79.8'	24,202mm 79.5'	38,439mm 126.2'	3,551mm 11.7'
300"	8,764mm 28.8'	12,671mm 41.6'	12,107mm 39.8'	16,234mm 53.3'	15,322mm 50.3'	24,246mm 79.6'	24,144mm 79.3'	36,552mm 120.0'	36,454mm 119.6'	57,808mm 189.7'	
400"	11,704mm 38.4'	16,912mm 55.5'	16,167mm 53.1'	21,670mm 71.1'	20,456mm 67.2'	32,354mm 106.2'	32,236mm 105.8'	48,781mm 160.1'	48,706mm 159.8'	77,177mm 253.3'	
500"	14,643mm 48.1'	21,152mm 69.4'	20,228mm 66.4'	27,106mm 89.0'	25,590mm 84.0'	40,462mm 132.8'	40,329mm 132.4'	61,010mm 200.2'	60,957mm 200.0'	96,546mm 316.8'	=
600"	17,582mm 57.7'	25,393mm 83.4'	24,288mm 79.7'	32,542mm 106.8'	30,723mm 100.8'	48,571mm 159.4'	48,422mm 158.9'	73,239mm 240.3'	73,209mm 240.2'	115,915mm 380.3'	=

#### **Dimensions**



#### NOTES ON USE

- 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 fall to illuminate, due to impact or extended use.
  3. The projector uses a high-veatage lamp that becomes very hot during operation. Please observe the following precautions.
  4. Were place objects on top of the projector while its is operation.
  5. On the stack reported runtis directly on top of one another for the purpose of multiple stakeder projector. 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 after the entire of the projector of the projector or enclosure, berngenter of the air surrounding the projector must be between 0° Co. (27-) Fand 40° Crit (47-). Also make sure the projector's intake and exhaust openings are not blooked. Take particular care to ensure that had a from the exhaust openings is not sucked into the intake openings.
  5. Feen when the ambient temperature near the hallows opening is 40° Crit (47-) For lower, an accumilation of hot or inside the colorior makes the projector's order of the colorior of the projector or the objector. Please give analyse of the design with regard to ambient temperature conditions.
  4. If the projector is to be operated continuously 24 hours a day in dutal-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 separated repeatedly for short periods.

   The brightness of the lamp will gradually decrease with use.

For more information about Panasonic projectors —

#### http://panasonic.net/avc/projector

Please contact Panasonic or your dealer for a demonstration.







**Panasonic** 

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