

Panasonic
ideas for life

PT-D10000U

3-chip DLP™ Projector



A 3-chip DLP™ system projector with
10,000 lumens of brightness and
outstanding reliability



POWERED BY
DLP™

AUTO CLEANING ROBOT



PT-D10000U



Projection
of bright,
high-quality
images in large
spaces.



Classrooms



Conference rooms

**High brightness —
10,000-lumen**

**High contrast ratio —
5,000:1**

High image quality — SXGA+

Outstanding 10,000-lumen brightness and superb image quality

Thanks to Panasonic's four lamp system, the new PT-D10000U delivers 10,000 lumens of brightness. And with Panasonic's dynamic iris technology, it achieves a super-high 5000:1 contrast ratio. Also featuring 3-chip DLP™ technology that provides high resistance to deterioration due to aging, the PT-D10000U is a durable and reliable performer.

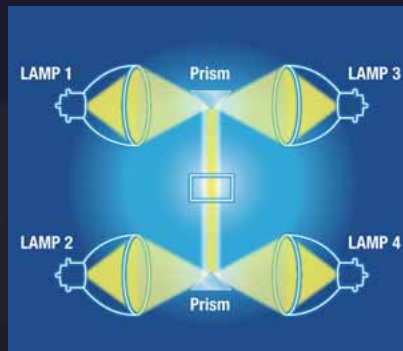


Panasonic's new technologies improve reliability and installation ease

Minimal downtime, high efficiency, and a bright picture.

MULTI-LAMP OPTICAL SYSTEM

With Panasonic's original four lamp system, the PT-D10000U generates 10,000-lumen brightness. If one lamp burns out during operation, the remaining lamps provide plenty of light to continue projecting. A lamp relay mode is also included. Extended, continuous operation is possible by lamp mode selection.



Lamp replacement cycle and brightness guidelines

Lamp mode	Light output (lumens)	Lamp replacement cycle (hours)
Four lamps	10,000	2,000
Three lamps	7,500	3,000
Two lamps	5,000	4,000
One lamp	2,500	8,000

*The values above are maximum values when all 4 lamps are replaced simultaneously, and when they are used in cycles of being turned on for 3.5 hours and off for 0.5 hour. When the lamps are turned on and off more frequently, the lamp replacement cycle is shortened. (It is recommended that the mechanical shutter be used to turn images off for a short period.)

Panasonic Original

Provides 2,000 hours of use without filter maintenance.

AUTO CLEANING ROBOT (ACR)

The PT-D10000U is the world's first*¹ projector with an automatic filter cleaning system. When you switch on the projector*², the air filter operates and the brush of the auto cleaning "robot" removes dust from the filter. This prevents the clogging results in malfunctions and other problems.



Panasonic Original

Micro cut filter

A new filter in the air intake section traps dust particles that are 10 microns*³ or larger. By capturing approximately 7 times as much dust as our previous filters, it guards against optical blocks and reduces the penetration of dust into the interior to provide stable operation by, for example, preventing drops in brightness.



*1 As of March, 2007. *2 When using the timer, you cannot set the filter to be cleaned more than once every 24 hours. Cleaning occurs either when the system is switched on or when it is cooling down when the specified cleaning time comes. The timer can be set to any time between 00:00 and 23:50 in 10-minute increments. You can also manually clean the filter using the menu on the on-screen display. *3 Individual lint particles and pollen are examples of dust with a size of 10 microns.

Use the optional smoke-cut filter (ET-SFD100) at staging events with smoke or fog..

Dramatically reduced the size, and enabled 120-VAC operation.

1/2 CONCEPT

Featuring a brightness of 10,000 lumens, this projector operates on 120 VAC. Panasonic's liquid-cooling system also made it possible to significantly downsize the PT-D10000U to achieve a compact body. The size is 30% smaller and the weight and volume are 70% less than our previous models.* The PT-D10000U also offers flexible installation and is easy to operate.

*PT-D9510/PT-D9610

	PT-D9510/PT-D9610	PT-D10000U
Weight	220 lbs	70.5 lbs
Dimensions	W 29-41/64" x H 16-55/64" x D 41-3/8"	W 22-3/4" x H 12-19/32" x D 25-5/16"
Volume	0.33 m ³	0.11 m ³
Power supply	220-240 V	120 V
Power consumption	2,200 W	1,450 W



HIGH RELIABILITY

New cooling structure

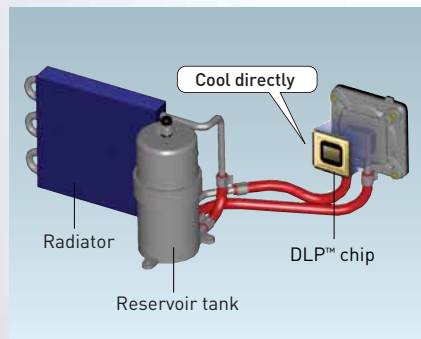
Panasonic Original

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.

Liquid-cooling system

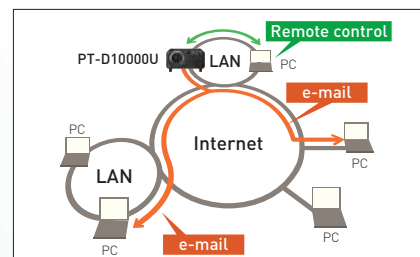
Panasonic Original

Panasonic's original liquid-cooling system directly cools the DLP™ chips, which extends the PT-D10000U's performance and attains a high level of reliability.



Web browser control/monitoring and e-mail message alert

Anybody can operate the PT-D10000U 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-D10000U sends an e-mail message to notify the operator when an error has occurred, or a lamp needs to be replaced.



PJ Link™ compatible



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

NEW

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



* Available in June 2008. Please consult a sales representative if necessary.

Lamp LED indicator and self-diagnosis function

The projector body is equipped with a temperature alarm LED and a burnt-lamp alarm LED (for lamps 1 to 4). In previous models, the LED indicator was visible only from the front. In the PT-D10000U the LED is visible from both front and top, so you can see it easily even if the unit is hung from the ceiling. Information on the location of the error is also given in the on-screen display. A self-diagnosis function is also provided. Error codes displayed on the 3-digit, 7-segment LED on the side of the projector tell the operator where the problem is.



HIGH IMAGE QUALITY/FLEXIBLE INSTALLATION

Dynamic iris

Panasonic Original

Incorporating exclusive Panasonic technology, the dynamic iris opens and closes with exceptional speed and precision as the input signal changes, resulting in accurate, real-time control of the light striking the DLP™ chips. The dynamic iris is positioned immediately after the light synthesizer and before the integrator, so it has minimal adverse effect on the overall light uniformity across the screen.



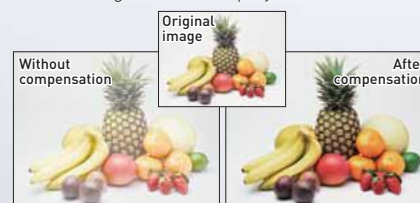
*Images are simulated.

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.

3D color management system

Compensation provides optimal levels of color saturation, hue, and brightness that were not possible with conventional projectors. Colors approach those of the original image, even on large-screen displays.



*Images are simulated.

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.

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.

Horizontal/Vertical lens shift

A wide adjustment range for the horizontal/vertical lens shift assures virtually distortion-free images and adds convenience and versatility. Fine adjustment is made within ±50 % from center in the vertical direction and within ±30 % from center in the horizontal direction. (Horizontal: powered, Vertical: powered)

*For the ET-D75LE6, the adjustment is within ±40 % in the vertical direction and ±20 % in the horizontal direction.

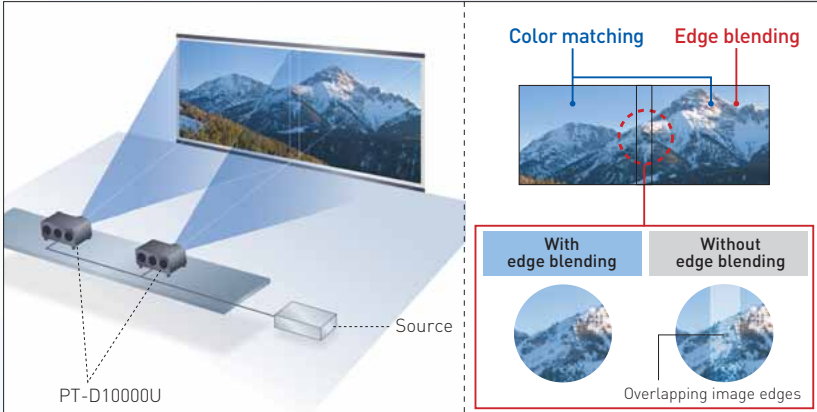
Optional lenses for various venues

Seven optional lenses with different throw distances are available. These powered zoom/focus lenses enable the projector to perform superbly in an array of projection environments. The lens cover opens in both front and top directions, making it easier to install the lens by viewing the mark on the top of the lens.



MULTIPLE SYSTEM APPLIANCE

Built-in multi-screen support system



*When edge blending and color matching are set, the brightness and color balance at the boundaries where screens are joined may lack uniformity due to differences in the uniformity of the screen gain directivity, the brightness of each lamp mode, etc.

Multi-screen processor

The PT-D10000U can project large, multi-screen images without any additional equipment. Up to 100 units (10 x 10) can be edge-blended at a time.

Color matching

When several units are used together, this function corrects for slight variations in the color reproduction range of individual projectors. The PC software assures easy, accurate control. Independent, 7-axis adjustment (red, green, blue, yellow, magenta, cyan, white) ensures high precision and minimizes color variations.

Edge blending

The edges of adjacent screens can be blended and their luminance controlled. For example, the adjoining edges in a 2x2 multi-screen system can be blended to create a smooth, seamless image.

Multiple terminals including DVI-D and LAN slots

The PT-D10000U comes equipped with DVI-D and LAN (PJ-Link™) slots. It also features an array of terminals, including two RGB inputs, a 5-BNC connector and D-sub HD 15-pin, serial in/out, S-video input, two remote inputs, and one remote out. In addition to offering DVI-D control, the PT-D10000U is HDCP*-compliant and thus meets a broad range of projection needs.

*High-Bandwidth Digital Content Protection



Other features

- Mechanical lens shutter
- Picture in picture (main/sub input source combinations possible only when using computer and video)
- Anti-theft features with chain opening
- ID assignment for up to 64 units
- Coordinated groups
- Digital vertical keystone correction
- Built-in test pattern
- Selectable 9-language on-screen menu (English, German, French, Spanish, Italian, Russian, Japanese, Chinese, Korean)

UNIVERSAL DESIGN

Easy lamp replacement

You can remove the back cover by removing a single screw. This makes it easy to replace a lamp, even if the projector is suspended from the ceiling or tucked in a hard-to-reach space.



Blind touch operation key/ New remote control

The keys have pits and projections that let you operate the projector by blind touch. A light can also be turned on to illuminate the control panel, for easy operation in a darkened room. The wireless operation range has been extended to 30 m, giving you control from a greater distance. Thanks to the backlight, you can



check all the keys on the remote control even in the dark. The lens can also be adjusted using the lens adjustment direct key that was newly added to the remote control.

Grooved for easy handling

Grooves on all four sides of the projector's bottom let you get a firm, comfortable grip on the unit and move it safely.

Ecological-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-D10000U reflects the following ecological considerations.

- Lead-free solder is used to mount components to the printed circuit boards.
- Lamp power switching further reduces power consumption.
- Auto Power Save activates standby mode when no signal is input.

Optional accessories

Lens Zoom lens ET-D75LE6 (1.0 - 1.2:1) ET-D75LE3 (3.0-5.0:1) ET-D75LE1 (1.5 - 2.0:1) ET-D75LE4 (5.0 - 8.0:1) ET-D75LE2 (2.0 - 3.0:1) ET-D75LE8 (7.9 - 15.0:1) Fixed focus lens ET-D75LE5 (0.8:1)  ET-D75LE1	Lamp Replacement lamp unit ET-LAD10000 ET-LAD10000F (four pack)  ET-LAD10000	Smoke Cut Filter ET-SFD100 This optional smoke filter must be used for staging events where smoke or fog is dispersed.. 	Frame ET-PFD100  Carrying handle ET-HAD100 	Ceiling mount bracket High-ceiling mount bracket ET-PKD100H Low-ceilingmount bracket ET-PKD100S  ET-PKD100H  ET-PKD100S
Input signal board* SD-SDI Input signal board ET-MD77SD1  HD/SD Input signal board ET-MD77SD3  DVI-D Input signal board ET-MD77DV 				

*The LAN terminal on each board, when mounted, cannot be used because the LAN terminal on the main unit has priority.

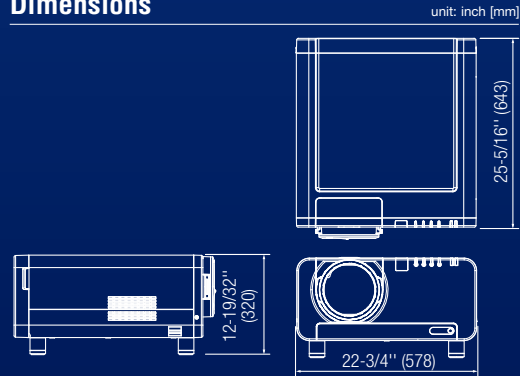
Specifications

DLP™ chip	Panel size	0.95" diagonal (4:3 aspect ratio)
	Display method	DLP™ chip x 3 (R, G, B), DLP™ projection system
	Pixels	1,470,000 (1,400 x 1,050) x 3, total of 4,410,000 pixels
Lamp		250 W UHM lamp x 4 (four lamp system)
Brightness*1		10,000 lumens (four-lamp operation mode)
Contrast ratio*1		5,000:1 (full on/full off, in Dynamic iris 3 mode)
Resolution		1,400 x 1,050 pixels (1,600 x 1,200 pixels compatible, compression mode)
Lens		Optional powered zoom/focus lenses
Screen size		70 - 600 inches, 4:3 aspect ratio (70-300 inches, 4:3 aspect ratio with the ET-D75LE5)
Lens shift		Vertical: ±50% (±40% with the ET-D75LE6) (powered) Horizontal: ±30% (±20% with the ET-D75LE6) (powered)
RGB input scanning frequency		fh 15-100 kHz, fv 24-120 Hz Dot clock 20-162 MHz
Component signal		480i, 480p, 576i, 576p, 720/60p, 720/50p, 1035/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p, 1080/60i, 1080/50i, 1080/50p, 1080/60p
Video signal		fh 15.75/15.63 kHz, fv 50/60Hz (NTSC, NTSC4.43, PAL, PAL60, PAL-N, PAL-M, SECAM)
Terminals	VIDEO IN	BNC x 1, 1.0 Vp-p
	VIDEO OUT	BNC x 1, 1.0 Vp-p
	S-VIDEO IN	Mini DIN 4-pin x 1
	RGB1/YPbPr IN	BNC x 5
	RGB2 IN	D-sub HD 15-pin x 1
	DVI-D IN	24-pin x1, DVI 1.0 compliant, HDCP compatible
	SERIAL IN	D-sub 9-pin female x 2 (RS232C x 1, RS422 x 1)
	SERIAL OUT	D-sub 9-pin male x 1 (RS422 x 1)
	REMOTE 1 IN	M3 jack x1 for wired remote control
	REMOTE 1 OUT	M3 jack x1 for link control
	REMOTE 2 IN	D-sub 9-pin female x 1 for external control (parallel)
	LAN	RJ-45 (10 Base-T/100 Base-TX) x 1, compatible with PjLink™
Keystone correction range		±40° (±22° with the ET-D75LE5, ±28° with the ET-D75LE6)

*1: Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*2 Average value. May differ depending on models.

Installation	Front/rear, ceiling/floor
Power cord length	9.9' (3.0 m)
Power supply	120 V AC, 20 A, 60 Hz
Power consumption	1,450 W (25 W in standby mode with fan stopped)
Dimensions (W x H x D)	22-3/4" x 12-19/32" x 25-5/16" (578 x 320 x 643 mm) (without lens)
Weight*2	Approx. 70.5 lbs (32 kg) without lens
Operating temperature	32 - 113 °F (0 - 45 °C) *The highland mode is for use at high altitudes. When using the unit at altitudes of 1,400 to 2,700 meters, the ambient temperature is 0 °C-40 °C.
Operating humidity	10-80% (no condensation)
Supplied accessories	Power cord, Wireless/wired remote control unit, Batteries for remote control (AA type x 2)

Dimensions



Shape of the plug receptacle

• 120 V AC, 20 A



Projection distance

Diagonal image size (aspect ratio: 4:3)	Throw distance												
	ET-D75LE6 1.0-1.2:1		ET-D75LE1 1.5-2.0:1		ET-D75LE2 2.0-3.0:1		ET-D75LE3 3.0-5.0:1		ET-D75LE4 5.0-8.0:1		ET-D75LE8 7.9-15.0:1		ET-D75LE5 0.8:1 fixed
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
70"	1,393 mm 4.6'	1,662 mm 5.4'	2,072 mm 6.9'	2,768 mm 9.0'	2,801 mm 9.2'	4,215 mm 13.8'	4,226 mm 13.9'	7,094 mm 23.2'	7,101 mm 23.3'	11,374 mm 37.3'	11,091 mm 36.4'	21,142 mm 69.3'	1,022 mm 3.3'
100"	2,014 mm 6.7'	2,406 mm 7.8'	2,992 mm 9.9'	3,998 mm 13.1'	4,035 mm 13.3'	6,067 mm 19.9'	6,077 mm 20.0'	10,187 mm 33.4'	10,193 mm 33.5'	16,292 mm 53.4'	16,009 mm 52.6'	30,358 mm 99.5'	1,496 mm 4.9'
150"	3,049 mm 10.0'	3,646 mm 11.9'	4,526 mm 14.8'	6,047 mm 19.8'	6,093 mm 19.9'	9,153 mm 30.0'	9,164 mm 30.2'	15,341 mm 50.3'	15,348 mm 50.3'	24,488 mm 80.3'	24,207 mm 79.4'	45,717 mm 149.9'	2,286 mm 7.5'
200"	4,084 mm 13.5'	4,886 mm 16.0'	6,060 mm 19.9'	8,096 mm 26.5'	8,150 mm 26.8'	12,240 mm 40.1'	12,250 mm 40.2'	20,496 mm 67.2'	20,502 mm 67.3'	32,685 mm 107.2'	32,404 mm 106.3'	61,076 mm 200.3'	3,076 mm 10.0'
300"	6,154 mm 20.2'	7,366 mm 24.1'	9,128 mm 30.0'	12,194 mm 40.0'	12,265 mm 40.3'	18,413 mm 60.3'	18,423 mm 60.5'	30,805 mm 101.0'	30,811 mm 101.1'	49,078 mm 160.9'	48,799 mm 160.1'	91,794 mm 301.0'	4,656 mm 15.2'
400"	8,224 mm 27.0'	9,846 mm 32.2'	12,196 mm 40.1'	16,292 mm 53.4'	16,380 mm 53.8'	24,586 mm 80.6'	24,596 mm 80.7'	41,114 mm 134.8'	41,120 mm 134.9'	65,471 mm 214.7'	65,194 mm 213.9'	122,512 mm 401.8'	—
600"	12,364 mm 40.6'	14,806 mm 48.5'	18,332 mm 60.2'	24,488 mm 80.3'	24,610 mm 80.8'	36,932 mm 121.1'	36,942 mm 121.2'	61,732 mm 202.4'	61,738 mm 202.6'	98,257 mm 322.2'	97,984 mm 321.4'	183,948 mm 603.3'	—

NOTES ON USE

- 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.
- 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 projector uses of 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 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 at one 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 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.
- If the projector is to be operated continuously 24 hours a day, use the multi-lamp optical system's alternating lamp operation (lamp changer) function. The projector can be operated continuously 24 hours a day in four-lamp operation mode, but it will automatically operate with three lamps for 8 hours of the 24 hours.
- 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.
- Because the ET-D75LE5 is a fixed short-throw lens, the lens shift function cannot be used with it.

Panasonic®

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



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

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