

Panasonic
ideas for life

PT-EX16K
PT-EX12K
LCD Projectors

Sharp, Bright, Large-Screen Images
Solid Reliability and System Expandability



Outstanding Performance for Large-Space Viewing

A 2-Model Lineup with the High-Brightness, 16,000-lm PT-EX16K and 13,000-lm PT-EX12K.



PT-EX16K*

16,000 lm

XGA

NEW

PT-EX12K*

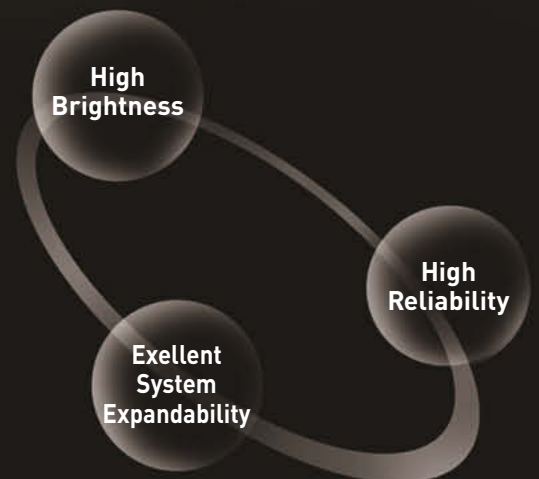
13,000 lm

XGA

* Product numbers vary depending on the market. The product number in North America and Taiwan is PT-EX16KU/EX12KU. The product number in Europe, CIS, Asia (except Taiwan), Oceania, Middle East, and Africa is PT-EX16KE/EX12KE.

Balancing the factors required to fill large spaces with breathtaking images.

The PT-EX16K and PT-EX12K render crisp, clear, large-screen images with the remarkable brightness of 16,000 lm and 13,000 lm, respectively. Pure Color Control, which independently controls yellow brightness to improve color reproduction, attains this superb brightness with optimal coloring. And the Multi-Lamp Optical System maintains high reliability. System expansion functions include horizontal/vertical lens shift and a Multi-Screen Support System. These and other features enable flexible installation for a wide variety of applications.



Bright, Vibrant Large-Screen Images

A Full 16,000 lm of Brightness and 2,500:1 Contrast

EX16K

The 4-Lamp Optical System uses high-output, 380 W UHM lamps to deliver remarkable 16,000-lm brightness. And the contrast ratio is a high 2,500:1, to ensure bright, crisp, large-screen projection.

High 13,000-lm Brightness and 4,000:1 Contrast

EX12K

The 2-Lamp Optical System uses high-output, 380 W UHM lamps to produce high brightness of 13,000 lm. Contrast is also high at 4,000:1. Images are sharp and crisp.

Full 10-Bit Image Processing System

EX16K

EX12K

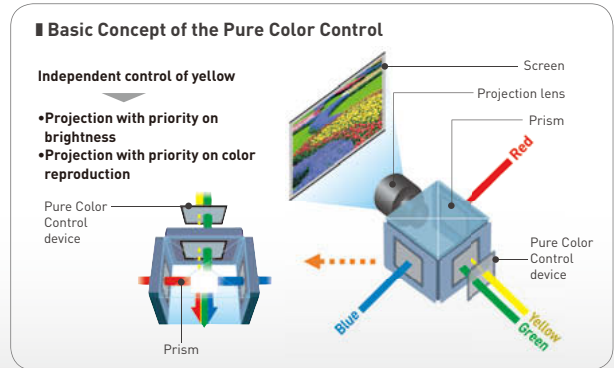
The use of a full 10-bit image processing system provides smooth tonal expression. For example, skin tones appear natural and true to life.

Excellent Colors with Pure Color Control

EX16K

EX12K

It is inherently difficult for LCD projectors to attain both high brightness and superb color reproduction. For this reason, in addition to the three conventional LCD panels that control the light intensity for the red, blue and green primary colors, the PT-EX16K/EX12K also features a Pure Color Control function that independently controls the light intensity of yellow coloring. This provides rich overall color expression while maintaining brightness.



High Reliability for Long-Time Use

The Multi-Lamp Optical System Enables Stable, Extended Operation

EX16K

EX12K

Even if one lamp goes out during use, the other lamps continue, so projection is not interrupted. Lamp Relay mode also allows long-time, continuous operation.

Brightness and Lamp Replacement Cycle Guideline

PT-EX16K

Lamp	Brightness (lm)	Maximum lamp replacement cycle (hours)*1
Four lamps (Normal)	16,000	2,000
Four lamps (Eco1 or Eco2)	12,320	3,000
Two lamps (Normal)	8,000	4,000
Two lamps (Eco1 or Eco2)	6,160	6,000

PT-EX12K

Lamp	Brightness (lm)	Maximum lamp replacement cycle (hours)*1
Two lamps (Normal)	13,000	2,000
Two lamps (Eco1 or Eco2)	10,010	3,000
One lamp (Normal)	6,500	4,000
One lamp (Eco1 or Eco2)	5,005	6,000

Highly Durable Optical Engine Ensures Excellent Long-Time Image Quality

EX16K

EX12K

The LCD panels and polarizers inside the LCD projector's optical block tend to degrade over time. Their degradation adversely affects image quality. Inorganic materials are used for the LCD panels, and for the polarizers that are prone to degradation, to resist time-related changes in the optical block, therefore achieving a replacement cycle of up to 10,000 hours.

Adverse Dust Effects Prevented by a Long-Lasting Air Filter

EX16K

The use of a large pleated air filter has made it possible to achieve a replacement cycle of up to 5,000 hours.*2 This greatly reduces maintenance hassles. The filter is also replaced from the front, so there is no need to detach the projector from its mounting bracket in ceiling-mounted applications.

The Long-Lasting Eco Filter with User-Friendly Maintenance

EX12K

The PT-EX12K features the Eco Filter, which efficiently captures dust and requires no replacement for up to 12,000 hours.*2 It consists of Micro Cut Filters*3 that use an ion effect to collect extremely small dust particles. These large-surface, pleated filters have a high dust collecting performance. In addition to its long replacement cycle, the Eco Filter can be washed with water*4 for repeated use, further increasing its ecological performance.

The Eco Filter can also be removed through the top panel of the projector, enabling filter replacement on ceiling-mounted projectors without having to detach the projector from its mounting bracket.



Optional Smoke Cut Filter Provides Protection from Fine Smoke Particles

EX16K

The projector can be equipped with an optional Smoke Cut Filter ET-SFE16 to prevent the entry of not only dust but also fine smoke particles, such as those used for special effects at events and stage performances.

*1 The values above are maximum values when they are used in cycles of being turned on for 2 hours and off for 0.25 hours. When the lamps are turned on and off more frequently, the lamp replacement cycle is shortened. The usage environment affects the lamp replacement cycle. *2 With the lamp power set to Normal. The usage environment affects the duration of the filter. *3 Electrostatic filters. *4 When washing with water, please follow the procedures listed in the operating instructions. Also, we recommend replacing the filter with a new one after it has been washed and reused twice. If the filter is not sufficiently clean after washing, replace it with a new one.

The Horizontal/Vertical Lens Shift Function and a Variety of Lenses EX16K EX12K

Both zooming and focusing can be done by remote control. The wide adjustment range of the powered horizontal/vertical lens shift function assures convenience and versatility during installation. You can also choose from a wide variety of lenses, from short or long focus zoom lenses to a fixed focus lens for rear projection. This makes it possible to install the projector in a variety of locations.

Lens-centered Design EX12K

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



Flexible Installation EX16K EX12K

The projector can be rotated 360° vertically for flexible installation. This allows projection from directly above or below, for exciting visual possibilities in art galleries, theaters and showrooms.



Corner Keystone Correction Enables Angled Projection EX16K EX12K

All you need to do is designate four points as the corners of the projected image, and this function automatically carries out horizontal and vertical keystone correction.

Multi-Screen Support System Seamlessly Connects Multiple Screens EX16K EX12K

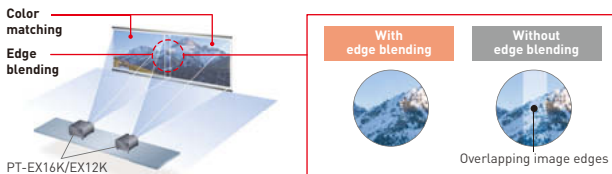
The Multi-Screen Support System optimally adjusts multiple screens: Edge blending, color matching.

• 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.



Versatile Interfaces and Illuminated Terminals and Control Panel EX16K EX12K

The wide-ranging terminals include 2 sets of RGB inputs*5, an HDMI input, and a DVI-D input. Mounting the optional Interface Board ET-MD16SD1 also accommodates HD/SD-SDI signal input.

The terminal connection area is LED illuminated, and a backlight is provided for the control panel buttons, ensuring smooth and easy operation in the dark.



* Featured image is PT-EX12K. The serial input terminal of the PT-EX16K is a male type. The printings on the side of PT-EX16K differ slightly from the picture shown.

Mechanical Shutter for a Total Screen Blackout EX16K EX12K

The Mechanical Shutter lets you mechanically block the light to completely blackout the screen, and prevents light leakage from the lens. When closing the shutter, the projection image gradually fades out, then gradually fades in when opening, which brings more attractive stage effects.

Easy Remote Control and Observation EX16K EX12K

A web browser on a computer connected through a 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 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.



Robust Carrying Handles EX16K

An iron base plate is mounted to the bottom of the main unit. Also, robust carrying handles attached to the base plate are designed for easy carrying of the projector.



Top-Panel Lamp Replacement Simplifies Maintenance EX16K EX12K

The lamp can be reached through the top panel for easy replacement. This eliminates the need to detach the projector from its mounting bracket in ceiling-mounted applications and greatly simplifies maintenance.

* Featured Image: PT-EX12K.



Direct Power Off EX16K EX12K

The cooling fan continues to operate even when the main power switch is turned off after projection is finished. This also allows the power to be turned off by directly switching off the room's main breaker for systems, such as ceiling mounted systems, where the main power switch cannot be reached.

A Remote Control ID EX16K EX12K

Projector identification system for remote control allocation of up to 64 projectors allows simultaneous or individual control when multiple projectors are used.

* Featured Image: PT-EX12K.



Effective Theft Prevention with the Startup Logo*6 EX16K EX12K

You can change the default Panasonic logo to any logo you want, such as your company's logo for example.

*5 One set supports YPbPr (YCbCr) signals.

*6 The included Logo Transfer Software is required to upload a new logo.

Specifications

Model	PT-EX16K	PT-EX12K	
Power supply	200-240 V AC, 50/60 Hz	100-240 V AC, 50/60 Hz	
Power consumption	1,850 W (18 W with standby mode)	940 W (17 W with standby mode)	
LCD panel	46 mm (1.8 inches) diagonal (4:3 aspect ratio)		
	Transparent LCD panel (x 3, R/G/B)		
	786,432 (1,024 x 768) x 3, total of 2,359,296 pixels		
	Stripe		
Pure color control device	1		
Lens	Optional		
Lamp	380 W x 4, lamp replacement cycle (lamp power: Normal/Eco1, Eco2): 2,000 hours/3,000 hours*1	380 W x 2, lamp replacement cycle (lamp power: Normal/Eco1, Eco2): 2,000 hours/3,000 hours*1	
Screen size (diagonal)	1.02-15.24 m [40-600 inches] [2.54-15.24 m [100-600 inches] with the ET-ELS03], 4:3 aspect ratio		
Brightness*2	16,000 lm (4-lamps, lamp power: Auto/Normal, Optional lens: ET-ELS03)	13,000 lm (2-lamps, lamp power: Auto/Normal, Optional lens: ET-ELS03)	
Center-to-corner uniformity*2	90 %		
Contrast*2	2,500:1 (full on/full off, 4-lamps, lamp power: Auto)	4,000:1 (full on/full off, 2-lamps, lamp power: Auto)	
Resolution	1,024 x 768 pixels (Input signals that exceed this resolution will be converted to 1,024 x 768 pixels.)		
Scanning frequency	Horizontal: 26-80 kHz, vertical: 23-85 Hz, dot clock: 162 MHz or lower		
	RGB (analog) Dot clock: 230 MHz or lower (Signals exceeding the dot clock rate of 165 MHz are downsampled.) fh: 15-120 kHz, fv: 48-120 Hz		
	YPbPr (YCbCr)	fh: 15.75 kHz, fv: 60 Hz [480i (525i)] fh: 31.25 kHz, fv: 50 Hz [576p (625p)] fh: 33.75 kHz, fv: 60 Hz [1035/60i] fh: 28.13 kHz, fv: 25 Hz [1080/25p] fh: 27.00 kHz, fv: 48 Hz [1080/24sF] fh: 67.50 kHz, fv: 60 Hz [1080/60p]	fh: 15.63 kHz, fv: 50 Hz [576i (625i)] fh: 45.00 kHz, fv: 60 Hz [720 (750)/60p] fh: 33.75 kHz, fv: 60 Hz [1080 (1125)/60i] fh: 28.13 kHz, fv: 50 Hz [1080/25sF] fh: 33.75 kHz, fv: 30 Hz [1080/30p] fh: 56.25 kHz, fv: 50 Hz [1080/50p]
	Video/S-Video	fh: 15.75 kHz, fv: 60 Hz [NTSC/NTSC4.43/PAL-M/PAL60], fh: 15.63 kHz, fv: 50 Hz [PAL/PAL-N/SECAM]	
Optical axis shift	With the ET-ELW06: vertical ±39% from center of screen (powered)*3 With the ET-ELW02/ELW04/ELS03/ELM01/ELT02/ELT03: vertical ±39%, horizontal ±10% from center of screen (powered) With the ET-ELS02: vertical ±50%, horizontal ±10% from center of screen (powered) With the ET-ELW03: the optical lens shift function cannot be used.		
Keystone correction range	Vertical: Maximum ±40°, Horizontal: Maximum ±40° (with XGA signal input, for vertical/horizontal correction only, Optional lens: ET-ELS03)		
Installation	Ceiling/floor, front/rear		
INPUT1	DVI-D IN	DVI-D 24-pin x 1 (DVI 1.0 compliant, compatible with HDCP, compatible with single link only), 480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1035/60i, 1080/24p, 1080/24sF, 1080/25p, 1080/25sF, 1080/30p, 1080/30sF, 1080/60p, 1080/50p, VGA [640 x 480]-WUXGA [1,920 x 1,200]*4, compatible with non-interlaced signals only, dot clock: 25-162 MHz	
	HDMI IN	HDMI 19-pin x 1 [compatible with HDCP, compatible with Deep Color], 480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1035/60i, 1080/24p, 1080/24sF, 1080/25p, 1080/25sF, 1080/30p, 1080/30sF, 1080/60p, 1080/50p, VGA [640 x 480]-WUXGA [1,920 x 1,200]*4, compatible with non-interlaced signals only, dot clock: 25-162 MHz	
	ANALOG IN	D-sub HD 15-pin (female) x 1 (RGB x 1)	
	INPUT2	RGB 5BNC IN/VIDEO IN	BNC x 5 (RGB/YPbPr/YCbCr x 1), shared with VIDEO IN (BNC x 1) (composite video)
Terminals	S-VIDEO IN	Mini DIN 4-pin x 1 (S-Video)	
	INPUT3/INPUT4	Optional interface board slot. When the ET-MD16SD1 is installed, SERIAL IN (SDI IN 1/2): BNC x 2 (SD-SDI signal/single link HD-SDI signal) SD-SDI signal (YCaCr 4:2:2 10-BIT): 480i, 576i (SMPTE 259M-C compliant) Single-link HD-SDI signal (YPbPr 4:2:2 10-BIT): 720/50p, 720/60p, 1035/60i, 1080/50i, 1080/60i, 1080/25p, 1080/25sF, 1080/24p, 1080/24sF, 1080/30p, 1080/30sF (SMPTE 292M compliant)	
	SERIAL IN	D-sub 9-pin (male) x 1 for external control	D-sub 9-pin (female) x 1 for external control
	SERIAL OUT	D-sub 9-pin (male) x 1 for link control	
REMOTE IN	M3 Jack x 1 (for wired remote control)		
LAN	RJ-45 x 1 (for network connection, 100Base-TX/10Base-T, compliant with PLink™ [class1])		
USB	USB type-B (USB connector) x 1*5		
Cabinet materials	Molded plastic		
Dimensions (W x H x D)	650 x 349 x 815 mm (25.6" x 13.7" x 32.1") (with legs at shortest position, optional lens not included)	538.5 x 268 x 757 mm (21.2" x 10.6" x 29.8") (with legs at shortest position, optional lens not included)	
Weight	Approximately 46.5 kg (102.5 lbs) (optional lens not included)	Approximately 28 kg (61.7 lbs) (optional lens not included)	
Noise level	51 dB (lamp power: Normal/Eco2), 48 dB (lamp power: Eco1)	42 dB (lamp power: Normal/Eco2), 39 dB (lamp power: Eco1)	
Operating temperature	5°C- 40°C [41°F-104°F] (less than 1,800 m [5,906 ft] above sea level), 5°C- 30°C [41°F-86°F] (between 1,800 m and 2,700 m [5,906 ft to 8,858 ft] above sea level)	0°C- 40°C [32°F-104°F] (less than 1,400 m [4,593 ft] above sea level), 0°C- 30°C [32°F-86°F] (between 1,400 m and 2,700 m [4,593 ft to 8,858 ft] above sea level)	
Operating humidity	20-80 % (no condensation)		
Supplied accessories	Power cord x 1 (x 2 for PT-EX16KE/EX12KE), power cord holder/power cord cover x 1set, wireless/wired remote control unit, batteries [AAA/R03/LR03 type x 2], VGA cable x 1, software CD-ROM (Logo Transfer Software, Multi Projector Monitoring & Control Software, Real Color Manager Pro.), lens attachment x 1set, lens lock lever fixing bracket x 1set, lightshielding plate x 3set, spacer x 1set, cable tie x 3		

*1 The values given for the recommended lamp replacement cycles are maximum. *2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*3 The ET-ELW06 is equipped with only vertical optical axis shift. *4 Compliant with VESA CVT-RB. *5 This port is for use by service personnel only. The USB interface may not operate with all USB compatible equipment.

Caution

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.

NOTE ON USE

- This product must not be used in residential areas.
- This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.
- The projector uses a high-voltage mercury lamp under high internal pressure. This lamp may break, emitting a popping sound, or fail to illuminate, due to impact or extended use.
- The high-wattage lamp becomes very hot during operation. Please observe the following precautions:
 - Never place objects on top of the projector while it is in operation. • Make sure there is an unobstructed space of 1,000 mm (39-3/8 in) or more around the projector's exhaust openings. • If stacking projector units, care must be taken to provide the recommended space between units. 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, the temperature of the air surrounding the projector must match the operating temperature listed in the specifications table during use. Also, make sure the projector's intake and exhaust openings are not blocked. Ensure there is sufficient ventilation to prevent hot air from the exhaust openings being recirculated into the intake opening.
- The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
 - The lamp replacement cycle varies greatly depending on individual lamp characteristics and usage conditions.
 - The brightness of the lamp will gradually decrease with use.
- Due to natural characteristics of lamps, screen brightness may fluctuate. This is not an indication of faulty lamp performance.



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

www.panasonic-center.at

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations. The projection distances and throw ratios given in this brochure are for use only as guidelines. For more detailed information, please consult the dealer from whom you are purchasing the product. The PLink trademark is an application trademark in Japan, the United States, and other countries and regions or registered trademarks. All other trademarks are the property of their respective trademark owners. Projection images simulated.
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