# Panasonic

## PT-RZ670 Series

**1-Chip DLP™ Projectors** 

PT-**RZ670** PT-**RZ670**L PT-**RW630** PT-**RW630**L







## World's First Laser Light Source 1-Chip DLP™ Projectors with 6,500 Im of Brightness

- \* For 1-chip DLP™ projectors, as of July 2014. \*\* Panasonic standard value when shipped.



# An Answer to the Critical Demands for Long-Term Operation

The PT-RZ670/RW630 peak-performing 1-chip DLP™ projectors were developed with the goal of achieving the highest possible image level as flagship models. Joining the ranks of Panasonic's SOLID SHINE projectors, The PT-RZ670 Series offers the world's first\*¹ 6,500\*² Im of brightness in a laser light source 1-chip DLP™ projector. Panasonic's original "Quartet Color Harmonizer" reproduces optimally efficient colors and images that approach those of high-end flagship models. Plus, the unprecedented reliability of the solid-state light source maintains

image quality for 20,000 hours\*3 or more. Installation flexibility has also entered a new dimension with the PT-RZ670 Series.

In addition, starting with the professional features in our flagship models for large-venue applications, a host of functions reflect the technology and know-how that Panasonic has accumulated over more than 30 years of projector development. The PT-RZ670 Series is setting new 21st century standards for reliable, high-quality projectors that easily meet the demands of critical professionals.

PT-RW630W PT-**RZ670**B PT-RW630B PT-**RZ670**W PT-RW630LB PT-RW630LW PT-RZ670LB PT-**RZ670**LW WUXGA WXGA WUXGA WXGA 6,500 lm\*2 6,500 lm\*2 6,500 lm\*2 6,500 lm\*2

The PT-RZ670LB/RZ670LW and PT-RW630LB/RW630LW are not equipped with a lens.
The cabinet for each model is available in black (PT-RZ670B/RW630B) or white (PT-RZ670W/RW630W).

## **Superb Image Quality**

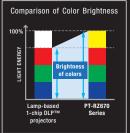
#### High Brightness of 6,500 Im

A new heat-resistant material is used in the phosphor wheel to withstand the high output of the laser light source. Combined with a drive system that is also optimized for the light source, this made it possible to achieve the world's first\*<sup>1</sup> 6,500 lm\*<sup>2</sup> of brightness in a 1-chip DLP™ projector. In our Quartet Color Harmonizer, opti-

mal engineering of the color wheel mechanism has improved color reproduction by reducing energy loss from the light source. This has resulted in a perceived brightness that even exceeds the specification values, regardless of the projected content, opening the door to a wide range of applications for the PT-RZ670 and PT-RW630.



A material with excellent heat resistance is used in the phosphor wheel. This achieves both high brightness and long-lasting reliability.



## Dynamic Light Control for High 10,000:1\*4 Contrast Ratio

The PT-RZ670 Series projectors directly control the output of the laser light source itself, enabling faster response than lamp-based projectors. Frame-by-frame scene-linking modulation with complete digital control makes it possible to adjust the light output with higher precision. This gives the PT-RZ670 Series its remarkable 10,000:1\*4 contrast without lowering the brightness in bright scenes. This enables highly pre-

cise contrast control even when bright and dark scenes suddenly or frequently interchange. There is also almost no reduction in contrast when the projector is used for extended periods of time.

#### Ideal White Balance for All Picture Modes: Superior Color Reproduction.

Unique, optimal Panasonic engineering eliminated the white segment from a conventional color wheel and achieved an ideal mixture of the four R, G, B, and Y colors to give the color wheel mechanism in the PT-RZ670 Series a greatly improved white balance. This takes full advantage of the SOLID SHINE Series to produce almost pure white even in Dynamic mode (brightness 6500 lm). And in other modes as well, optimally balanced, high-definition images are projected with little loss of brightness. Color reproduction approaches the level of our high-end flagship models.

## Detail Clarity Processor 3 Gives Natural Clarity to Even the Finest Details

This unique Panasonic circuit optimizes the sharpness of each image, based on the superhigh-, high-, medium-, and low frequency components of the extracted image information. The resulting images have more natural, lifelike expression.

## Advanced Technologies for Excellent Image Quality

- 3D color management system Full 10-bit image processing Progressive cinema scan (3:2 pulldown) Dynamic sharpness control
- Digital noise reduction IP conversion
- Al scene control 2:2 pulldown mode
- sRGB compatibility

## **Superb Durability**

## Dual Drive Laser Optical Engine for Reliable 24/7 Operation

It is almost impossible to imagine that a laser light source would suddenly go blank. The Dual Drive Laser Optical Engine uses two sets of light sources that group laser diodes into a number of mod-



ules. Based on redundant design, the laser diodes are put to considerable use, so over the long term, if a laser diode were to stop functioning, a protective circuit would activate to keep the brightness drop extremely small. Even if this were to happen during 24/7 operation, it would not result in downtime. The dual drive structure also keeps the optical engine output uniformly bright and colorful even if the light source's original brightness is different due to aging degradation.

### Long-Lasting Image Quality Featuring Constant Brightness Modes

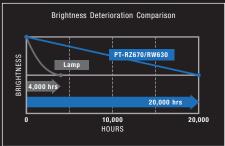
While the brightness of a conventional lamp-based projector drops rapidly due to deterioration over time, the brightness of the laser light source decreases gradually (exhibiting a linear decrease over the time of usage). The PT-RZ670 Series maintains high brightness for 20,000 hours\*3 or more. In addition, built-in brightness and color sensors optimally maintain brightness and color balance with high precision, to dramatically suppress the effects of time-related deterioration. Together with a durable optical system, the PT-RZ670 Series maintains excellent picture quality for a long period of time. In many cases, this means no maintenance for about 20,000 hours.\*3

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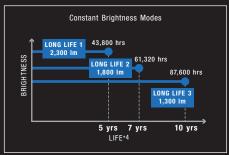
#### Approx. 20,000 Hours\*3 of Continuous Operation

In NORMAL mode with brightness of 6,500 lm, the PT-RZ670 Series projector requires no maintenance for approximately 20,000 hours.\* In ECO mode with brightness of 5,200 lm, this is further reduced, with no need to change the light source for approximately 24,000 hours.\* These modes are suitable for frequent but not continuous usage, such as education or signage applications.



#### Constant Brightness Modes for Long-Term Applications for up to 10 Years\*3

Installation conditions for surveillance applications such as control rooms, simulations, and museum exhibits do not always require the high brightness of 6,500 lm.\*2 Lowering the output of the laser light source extends its life span. With this



feature in mind, the PT-RZ670 Series has been equipped with operating modes that lengthen the usage time and maintain a constant brightness. For instance, in LONG LIFE 3 mode, it boasts up to 87,600 hours\*5 of continuous operation, i.e., about 10 years\*3 of 24/7 projection, while maintaining fixed brightness and picture quality.

#### User Operating Mode

In addition to the preset operating modes, the PT-RZ670 Series can be customized to match your application—with greater brightness or a longer life. You can set the brightness to range from 1,500 to 6,500 lm,\*2 or set the lifetime for a maximum of 10 years,\*3 whichever you choose.

## Powerful Cooling System Maintains Stable Operation up to $45^{\circ}C^{*6}$

The PT-RZ670 Series employs a specially developed cooling system for the laser light source to suppress temperature rises, allowing stable operation up to an ambient temperature of 45°C (113°F).\*6 The use of this cooling system also achieves quiet operation of 35 dB, enabling viewers to concentrate on the projected content. And the system is also well suited to installation in libraries and museums.

## • Liquid Cooling System for Laser Light

The liquid cooling system directly cools the laser light source modules. This enables the PT-RZ670 Series to operate even in an ambient tempera-

ture of up to 45°C (113°F).\*6 The system is hermetically sealed for stable operation.



## Dust-Resistant Structure with an Airtight Optical Block

The area between the laser light source to the DLP™ chip and prism is sealed to form an airtight structure for the optical block, the heart of the projector. The PT-RZ670 Series is tested in harsh environments with dust levels of 0.15 mg/m³.\*7 This has made it possible to achieve a construction that minimizes the decrease in brightness due to dust. This resists the effects of dust and other particles in the air, and enables use of the projector in a wide range of environments.

- 1 For 1-chip DLP™ projectors, as of July 2014.
- \*2 Panasonic standard value when shipped.
- \*3 At this time the brightness will have decreased to approximately 1/2 of its original level. Have the store where you purchased the unit perform cleaning after approximately 20,000 hours. The light source's lifetime may be shortened due to environmental conditions. Dustproof tests are conducted to confirm effectiveness, under conditions of 0.15 mg/m³ of particulate matter (based on tests by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHARE), and the Japanese Building Maintenance Association). Measurements are made using acceleration tests.
- \*4 With DYNAMIC CONTRAST mode set to 3.
- \*5 With OPERATING MODE set to LONG LIFE 3. Replacement of other parts than the light source may be required in a shorter period. 24 hours/day × 365 days/year × 10 years = 87.600 hours.
- \*6 If the ambient temperature exceeds 35°C (95°F) when used in locations from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level, or if it exceeds 25°C (77°F) when used in locations from 2,700 m to 4,200 m (8,858 ft to 13,780 ft) above sea level, the light output may be reduced to protect the projector.
- \*7 Based on tests by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHARE), and the Japanese Building Maintenance Association.

## **Expanding Installation Flexibility**

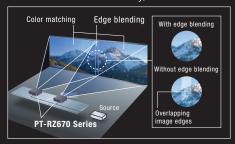
#### Multi-Screen Support System Seamlessly Connects Multiple Screens

#### 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-RZ670 Series can project large, multiscreen images. Up to 100 (10  $\times$  10) units can be edge-blended at a time.\*8

#### Multi-Unit Brightness/Color Control

By using built-in brightness and color sensors, this function automatically corrects the brightness and color fluctuations that occur over time in the individual projectors of a multi-screen system. Up to eight projectors can be controlled by connecting to each other via a hub, and this can be increased to a maximum of 2,048 projectors by using "Multi Projector Monitoring & Control Software Ver. 3.1."

#### 360-Degree Projection Capability

With the PT-RZ670 Series, projection is possible in any direction vertically and horizontally, including portrait projection, and the unit can be rotated 360 degrees for instal-



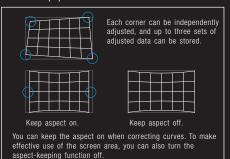
lation at any angle. The wide adjustment range of the powered horizontal/vertical lens shift function\*9 assures versatile installation. This enables highly creative and innovative projection effects.

## Geometric Adjustment for Specially Shaped Screens (PT-RZ670)

This function adjusts the image for projection onto spherical, cylindrical and other specially



shaped screens. You can make the adjustment easily using only the remote control, with no external equipment needed.

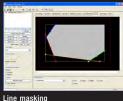


## Geometry Manager Pro Freeware (PT-RZ670)

The Geometry Manager Pro software offers a more flexible and complex geometric adjustment capability, and supports color matching and edge blending for multi-screen projection. It also makes adjustments for multiple projectors fast and easy over a network.

#### Optional ET-UK20 Upgrade Kit Featuring Geometry Manager Pro (PT-RZ670)

Applying this kit to Geometry Manager Pro enables creative masking using four lines and/or bitmap data, uniformity correction, and other useful functions.



Bitmap masking: Detailed masking is also

to 1920 × 1200.

possible with an image of up





Use it to overlap the projection image...

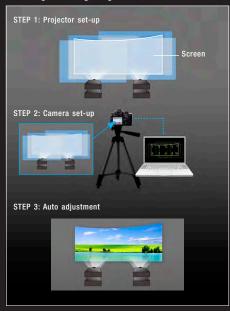


And the image is projected only in the designated areas

### Optional ET-CUK10\*10 Auto Screen Adjustment Upgrade Kit (PT-RZ670)

This plug-in software for Geometry Manager Pro sets up multiple projectors automatically and simultaneously, greatly saving installation time and costs. It takes only three quick and simple steps. By using a camera\*11 together with a PC connected to the projectors via a network, this

software calibrates and adjusts multi-screen or curved-screen projection. Adjustments include geometric adjustment, edge blending, color matching, stacking, brightness, and black level.



#### A Wide Selection of Optional Lenses Including ET-DLE030 Ultra-Short-Throw Lens

A wide variety of lenses add versatility and flexibility to projector installation. Long-throw zoom lenses, a short-throw lens, and an ultra-short-throw lens, in particular, make it easier to adapt your projector to the installation site compared with other brand systems. The ET-DLE030 ultra-short-throw lens enables 100-inch projection

from a 0.8 m (2.7 ft) distance. It's a powerful solution for the hassles of installation in a narrow space. The lenses attach and detach with one-touch ease.



NOTE: The usage example shown above is simulated images. In actual installation, a predetermined amount of space must be provided around the projector.

- 8 Input resolution is not converted for expansion.
- •9 Optical axis shift range: vertical +50% (PT-RW630: +60%)/-16%; horizontal +30%/-10%. For details, see the specifications on page 6
- \*10 Available for use worldwide except in the United States. Geometry Manager Pro software are required
- \*11 Supported cameras are Nikon D5200/D5300.

## **Professional System Integration**

#### **DIGITAL LINK—The Single Cable Solution**

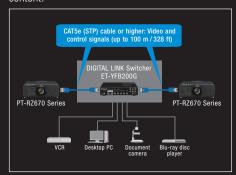
 Transmits Digital Signals up to 100 m (328 ft) with a Single Cable



DIGITAL LINK is an original function added to HDBaseT™ technology. Equipped with a DIGITAL LINK terminal, the PT-RZ670 Series projector allows transmission of HDMI, uncompressed HD digital video, and control signals (Ethernet, RS-232C) for up to 100 m (328 ft) through a single CAT5e (STP) cable or higher. This simplifies cabling and system upgrades, making it ideal for ceiling-mounted and other permanent installations.

#### Optional ET-YFB200G DIGITAL LINK Switcher and ET-YFB100G Digital Interface Box for Easy Setup

Used together with the ET-YFB200G DIGITAL LINK Switcher, ET-YFB100G Digital Interface Box, or other compatible equipment, the installation of this projector is easier than ever, without any need for external receivers. The input signal can also be easily switched\*12 from control panel or remote control of the projector to enable attractive presentations or lessons using multimedia content.



For details on other manufacturers' equipment, visit our Projector Global Web Site: panasonic.net/avc/projector

#### Art-Net\*13 Compatible

The PT-RZ670 Series projector is compatible with the Art-Net protocol for lighting management. Art-Net compatibility lets you connect the projector to the lighting console, and operate functions such as shutter on/off, input change, power on/off, etc., together with the light control.

### Quick Start, Quick Off

The image appears almost instantly upon powering up, and there is no need for cooling after turning the power off. The power can be turned on immediately after being turned off, and it can be turned on/off as many times as you want.

#### Backup Input Function\*14 Prevents Downtime by Using Two Inputs

By inputting identical content images into two inputs, primary and secondary, this function prevents the image from being interrupted. If there is a problem with the primary input source, a disruption in the input sync signal is detected, and this function automatically and instantly switches to the secondary input source. It is extremely useful for applications where downtime from PC hang-ups or other problems are impermissible.

## Multi Projector Monitoring & Control Software Ver. 3.1

Panasonic's original Multi Projector Monitoring & Control Software Ver. 3.1 freeware lets you control and monitor multiple projectors at the same time over a wired LAN. If a problem occurs, an alarm message is sent to the monitoring/controlling PC.

#### **Web Browser Control**

The PT-RZ670 Series can be easily operated remotely over a LAN network, because it is all done using the computer's web browser. Furthermore, the projector sends an e-mail message to notify the operator when an error has occurred.

## Optional ET-SWA100 Early Warning Software

This original software monitors projectors and displays that are connected to an intranet and informs you when an abnormality is detected or predicted,\*15 and when there are symptoms of trouble. This minimizes downtime to provide more stable operation, saving time and reducing costs for maintenance and service.



#### Other Valuable Features

- System Daylight View 2 enhances color perception with no need to turn off the lights.
- DICOM Simulation mode reproduces easy-toview rendering of X-ray photos.\*16
- Rec. 709 mode for HDTV projection to provide accurate colors.
- Waveform Monitor for easy and precise calibration.
- Compatible with Crestron Connected<sup>™</sup> devices.

- Lens-centered design and a wide horizontal/ vertical lens shift.
- Shutter effect with fade in/out (settable in 0.5-second intervals from 0.5 to 4.0 seconds, or to 5, 7, or 10 seconds).
- PJLink<sup>™</sup> compatible.
- P-in-P function.\*17
- Image rotation function
- On-screen menu can be rotated in portrait mode.
- Scheduling function.
- 30 m (98 ft) long-range wireless remote control.
- Anti-theft features with chain opening.
- Star-up logo function.
- ID assignment for up to 64 units.
- · Built-in test pattern.
- Selectable 10-language on-screen menu (English, German, French, Spanish, Italian, Portuguese, Russian, Japanese, Chinese, Korean).
- RoHS Directive compliant.

#### Ecology-Conscious Design

- · Lamp-free (no mercury)
- Low heat dissipation
- RoHS Directive compliant
- No halogenated flame retardants are used in the cabinet. (PT-RZ670W/RZ670LW/RW630W/ RW630LW only)
- · Lead-free glass is used for the lens.
- Light source mode is selectable to reduce power consumption.
- Standby power consumption of only 0.3 W has been achieved. (STANDBY MODE: ECO)
- An Auto Off Timer switches the projector to standby mode when no input signal is received for a preset time.

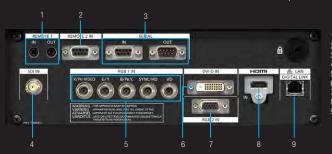


All PT-RZ670 Series projectors are carefully manufactured at the Panasonic factory in Japan, under strict quality control. This is another, very important advantage of a Panasonic projector.



- **★12** Input selection and other ET-YFB100G operations can be performed only when connecting to a DIGITAL LINK compatible projector.
- \*13 Art-Net is a protocol for transmitting the lighting control protocol DMX512 over Ethernet.
- \*14 Usable only with DVI-D primary input and HDMI secondary input, with a signal of the same format input to both.
- \*15 Please note that this software does not guarantee the prediction of all device breakdowns in all instances.
- \*16 The PT-RZ670 Series projector is not a medical instrument. Do not use it for actual medical diagnosis.
- \*17 This function cannot be used with some input signals and selected inputs.

The photo shows the terminals of the PT-RZ670B.



- Remote 1 input/output
- Remote 2 input Serial input/output SDI input (PT-RZ670 only)
- RGB 1 input DVI-D input RGB 2 input

- HDMI input LAN/DIGITAL LINK connector

ET-PKD120S Low-ceiling mount bracket

#### Black/white models

The cabinet for each model is available in black or white.

#### PT-RZ670B/RW630B



## PT-RZ670W/RW630W



PT-RZ670LB/RW630LB



#### PT-RZ670LW/RW630LW



#### Optional accessories

## ET-DLE030 Fixed-focus lens



ET-DLE250 Zoom lens



ET-DLE350

ET-DLE085 Zoom lens

ET-DLE150

Zoom lens



ET-DLE450 Zoom lens



ET-DLE055 Fixed-focus lens



#### ET-PKD120H High-ceiling mount bracket



High-ceiling mount bracket with 6-axis adjustment mechanism

ET-PKD130H

ET-PKD130B Attachment for ceiling mount bracket



NOTE: The ET-PKD120H/PKD120S/ PKD130H are used in combination with the ET-PKD130B. The ET-PKD130H is recommended when used with the ET-DLE030.

ET-UK20 Geometry Manager Pro Upgrade Kit

#### ET-CUK10

Auto Screen Adjustment upgrade kit

NOTE: Available for use worldwide except in the United States.

## ET-SWA100 Early Warning Software

ET-YFB200G DIGITAL LINK Switcher



Brackets included for various installation needs, including server rack (EIA standards) mounting.

ET-YFB100G Digital interface box



Brackets included for various installation needs including server rack (EIA standards) mounting.

Featuring the superb color rendition, light weight, and excellent TCO, the PT-RZ670 Series meets the versatile needs of professionals.



Control rooms



Museums/entertainment



Higher education

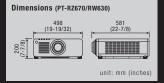


Staging

#### **Specifications**

Model		PT- <b>RZ670/RZ670</b> L	PT- <b>RW630/RW630</b> L
Power supply		100-240 V AC, 9.0-4.0 A, 50/60 Hz (Taiwan models: 110 V AC, 8.0 A, 60 Hz)	
Power consumption	STANDBY MODE	720 W (735 VA at 240 V AC) (Taiwan models: 730 VA at 110 V AC) (NORMAL: 558 W, ECO: 480 W, LONG LIFE 1: 448 W, LONG LIFE 2: 430 W, LONG LIFE 3: 407 W) $^{*1}$ 3 W $^{*2}$ when set to NORMAL, 0.3 W $^{*2}$ (0.2 W $^{*2}$ for Taiwan models) when set to ECO $^{*3}$	
DLP™ chip	Panel size Display method Pixels	17.0 mm (0.67 inches) diagonal (16:10 aspect ratio) DLP™ chip × 1, DLP™ projection system 2,304,000 (1,920 × 1,200) pixels	16.5 mm (0.65 inches) diagonal (16:10 aspect ratio) DLP™ chip × 1, DLP™ projection system 1,024,000 (1,280 × 800) pixels
Lens	PT-RZ670/RW630	Powered zoom (throw ratio 1.7–2.4:1), powered focus F 1.7–1.9, f 25.6–35.7 mm	Powered zoom (throw ratio 1.8–2.5:1), powered focus F 1.7–1.9, f 25.6–35.7 mm
	PT-RZ670L/RW630L	Optional powered zoom/focus lenses and fixed-focus lens	
Light source		Laser diodes (laser class: Class 1 (Class 3R for US models), 50% of brightness at 20,000 hou	rs (NORMAL) / 24,000 hours (ECO))
Screen size (diagonal)		1.27-15.24 m (50-600 in), 1.27-5.08 m (50-200 in) with the ET-DLE055, 2.54-8.89 m (1	00-350 in) with the ET-DLE030, 16:10 aspect ratio
Brightness		6,500 lm (Panasonic standard value when shipped), 7,100 lm (measured in compliance with IS	0 21118)
Center-to-corner uniformity*4		90 %	
Contrast*4		10,000:1 (full on/full off, with DYNAMIC CONTRAST ON)	
Resolution		1,920 × 1,200 pixels	1,280 × 800 pixels*5
Scanning frequency	SDI 3G-SDI HD-SDI	SMPTE ST 424 compliant, [RGB 4:4:4 12-bit/10-bit] 1080(1125)/60i, 1080(1125)/50i, 1080(1125)/25p, 1080(1125)/24p, 1080(1125)/24sF, 1080(1125)/30p, [YPePa 4:2:2 10-bit] 1080(1125)/60p, 1080(1125)/50p SMPTE ST 292 compliant, [YPePa 4:2:2 10-bit] 720(750)/60p, 720(750)/50p, 1035(1125)/60i, 1080(1125)/60i,	-
	SD-SDI	1080(1125)/50i, 1080(1125)/25p, 1080(1125)/24p, 1080(1125)/24sF, 1080(1125)/30p SMPTE ST 259 compliant, [YC₅Cʀ 4:2:2 10-bit] 480i(525i), 576i(625i)	
	HDMI/DVI-D/DIGITAL LINK RGB YPBPR (YCsCs) Video/YC	Compatible with HDCP, 480i(825);* 676i(825);* 480p(525p), 576p(625p), 720(750)/60p, 72 1080(1125)/24p, 1080(1125)/24p, 1080(1125)/24p, 1080(1125)/30p, 1080(1125)/60p, 1080(1125)/50p VGA (640 × 480) – WUXGA* (1,920 × 1,200)(compatible with non-interlaced signals only), do fix: 15–100 kHz, fv: 24–120 Hz, dot clock: 25–162 MHz fix: 15,75 kHz, fv: 60 Hz [480i (525i)] fix: 37.50 kHz, fv: 50 Hz [720 (750)/50p] fix: 31.50 kHz, fv: 50 Hz [1036 (1125)/60 fix: 15.63 kHz, fv: 50 Hz [576i (625i)] fix: 33.75 kHz, fv: 60 Hz [1080 (1125)/60 fix: 31.25 kHz, fv: 50 Hz [720 (750)/60p] fix: 28.13 kHz, fv: 50 Hz [1080 (1125)/50 fix: 45.00 kHz, fv: 60 Hz [720 (750)/60p] fix: 28.13 kHz, fv: 25 Hz [1080 (1125)/50 fix: 15.75 kHz, fv: 60 Hz [NTSC/NTSC4.43/PAL-M/PAL60], fix: 15.63 kHz, fv: 50 Hz [PAL/PAL-M/PAL60], fix: 15.63 kHz, fv: 50 Hz [PAL/	t clock: 25–162 MHz  fH: 27.00 kHz, fv: 24 Hz [1080 (1125)/24p]  ii] fh: 27.00 kHz, fv: 48 Hz [1080 (1125)/24sF]  ii] fh: 37.5 kHz, fv: 30 Hz [1080 (1125)/30p]  ij] fh: 67.50 kHz, fv: 60 Hz [1080 (1125)/60p]  p] fh: 56.25 kHz, fv: 50 Hz [1080 (1125)/50p]
Optical axis shift*8		Vertical +50%, -16%; horizontal +30%,*9 -10%; powered	Vertical +60%, -16%; horizontal +30%;*9 -10%; powered
Keystone correction range		Vertical ±40°,*10 horizontal ±15°*11	Vertical ±40°*11/12
Keystone correction range with optional upgrade kit ET-		Vertical ±45°,*15/14 horizontal ±40°*14/15	-
Installation		Flexible 360-degree installation	
Terminals	SDI IN	BNC × 1 (3G/HD/SD-SDI)	-
	HDMI IN DVI-D IN RGB 1 IN RGB 2 IN SERIAL IN SERIAL OUT REMOTE 1 IN REMOTE 1 OUT REMOTE 2 IN LAN / DIGITAL LINK	HDMI 19-pin $\times$ 1 (Deep Color, compatible with HDCP) DVI-D 24-pin $\times$ 1 (DVI 1.0 compliant, compatible with HDCP, compatible with single link only) BNC $\times$ 5 (RGB/YPePn/YCsCn/YC/video $\times$ 1) D-Sub HD 15-pin (female) $\times$ 1 (RGB/YPePn/YCsCn $\times$ 1) D-Sub 9-pin (female) $\times$ 1 for external control (RS-232C compliant) D-Sub 9-pin (female) $\times$ 1 for link control M3 $\times$ 1 for wired remote control M3 $\times$ 1 for link control (for wired remote control D-Sub 9-pin (female) $\times$ 1 for external control (oparallel) D-Sub 9-pin (female) $\times$ 1 for external control (oparallel) RJ-45 $\times$ 1 (for network and DIGITAL LINK (video/network/serial control) connection, 100Base-Deep Color, compatible with HDCP)	TX, compatible with Art-Net, compliant with PJLink™,
Cabinet materials		Molded plastic	
Dimensions (W $\times$ H $\times$ D)	PT-RZ670/RW630 PT-RZ670L/RW630L	$498\times200^{**16}\times581$ mm (19-19/32 $\times$ 7-7/8** <sup>16</sup> $\times$ 22-7/8 in)(with supplied lens) $498\times200^{**16}\times538$ mm (19-19/32 $\times$ 7-7/8** <sup>16</sup> $\times$ 21-3/16 in) (without lens)	
Weight* <sup>17</sup>	PT-RZ670/RW630 PT-RZ670L/RW630L	Approximately 23.2 kg (51.1 lbs) (with supplied lens) Approximately 22.5 kg (49.6 lbs) (without lens)	
Operation noise*4		35 dB	
Operating environment		Operating temperature: 0-45 °C (32-113 °F),*18 operating humidity: 10%-80% (no condensati	ion)
Supplied accessories		Power cord with secure lock, wireless/wired remote control unit, batteries (R03/AAA type $\times$ 2) Multi Projector Monitoring & Control Software)	, software CD-ROM (Logo Transfer Software,

- •1 Operating temperature: 25 °C, altitude: 700 m, IEC 62087:2008 broadcast contents, picture modes: STANDARD, DYNAMIC CONTRAST 2. •2 In STANDARD/GRAPHIC picture mode. Measured based on the power consumption rate and a measurement method for the TV receiver. •3 When the stand-by mode is set to ECO, network functions such as power on over the LAN will not operate. Also, only certain commands can be received for external control using the serial terminal. •4 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. •5 Input signals that exceed this resolution will be converted to 1,280 × 800 pixels. •6 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal). •7 WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking). •8 Optical axis shift cannot be operated with the ET-DLE055, and the optical axis is fixed with the ET-DLE030. •12 ±30° with the ET-DLE030. •11 Cannot be operated with the ET-DLE0830 with the ET-DLE085/DLE055 and ±22° with the ET-DLE085/DLE055. •13 ±40° with the ET-DLE150/DLE250/ supplied lens and ±22° with the ET-DLE085/DLE055. •14 Up to a total of ±55° during simultaneous horizontal and vertical correction.
- •15 ±15° with the ET-DLE085/DLE055. •16 With legs at shortest position. •17 Average value. May differ depending on models. •18 If the ambient temperature exceeds 35 °C (95 °F) when used in locations from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level, or if it exceeds 25 °C (77 °F) when used in locations from 0 m to 4,200 m (0 ft to 13,780 ft) above sea level, the light output may be reduced to protect the projector.



#### NOTES ON USE .

- Do not install the projector in locations that are subject to excessive water, humidity, steam, dust, or oily smoke. Doing so may result in fire, malfunction, or electric shock.
- 2. 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 500 mm (1 ft 8 in) 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.
  - Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install
    the projector so that cool or hot air from other air conditioning equipment does not flow
    directly toward the projector's air intake or exhaust openings.
  - Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.
  - If the projector is placed in a box or enclosure, ensure 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.
- Because the ET-DLE055/DLE030 is a fixed short-throw lens, the lens shift function cannot be used with it.

#### The SOLID SHINE Series features a cutting-edge solid-state light source



SOLID SHINE Series projectors provide solid reliability and long-lasting brightness unprecedented by conventional lamp-based projectors.

#### Capable of continuous, maintenance-free operation for approximately 20,000 hours\*

No need to replace the light source or air filter, providing a dramatic reduction in the Total Cost of Ownership (TCO).

#### Long-lasting picture quality

Excellent picture quality and color purity are maintained for a long time.

#### Superb color reproduction

Beautiful, vivid colors exceeding the levels of conventional projectors.

\* At this time the brightness will have decreased to approximately 1/2 of its original level. Have the store where you purchased the unit perform cleaning after approximately 20,000 hours. The light source's lifetime may be shortened due to environmental conditions. Dustproof tests are conducted to confirm effectiveness, under conditions of 0.15 mg/m3 of particulate matter (based on tests by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHARE), and the Japanese Building Maintenance Association). Measurements are made using acceleration tests.

#### **Projection Distance**

PT-RZ670 (	16:10	aspect	ratio)									unit:	meters (feet)
Diagonal						Thr	ow dista	псе					
image size	ET-D	LE085	ET-DLE150		Suppli	Supplied lens		ET-DLE250		ET-DLE350		.E450	ET-DLE055
[throw ratio]	[0.8-	-1.0:1]	[1.3-	1.9:1]	[1.7-	2.4:1]	[2.3-	3.6:1]	[3.6-	5.4:1]	[5.4-	8.6:1]	[0.8:1]
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
1.27	0.82	1.04	1.38	2.01	1.82	2.57	2.42	3.87	3.80	5.82	5.66	9.12	0.83
[50″]	(2.7)	(3.4)	(4.5)	(6.6)	(6.0)	(8.4)	(7.9)	(12.7)	(12.5)	(19.1)	(18.6)	(29.9)	(2.7)
2.03	1.35	1.68	2.23	3.25	2.95	4.16	3.92	6.23	6.16	9.38	9.23	14.78	1.35
[80″]	(4.4)	(5.5)	(7.3)	(10.7)	(9.7)	(13.6)	(12.8)	(20.4)	(20.2)	(30.8)	(30.3)	(48.5)	(4.4)
2.54	1.70	2.11	2.81	4.08	3.71	5.21	4.92	7.81	7.74	11.76	11.62	18.55	1.70
[100″]	(5.6)	(6.9)	(9.2)	(13.4)	(12.2)	(17.1)	(16.1)	(25.6)	(25.4)	(38.6)	(38.1)	(60.8)	(5.6)
3.81	2.57	3.19	4.24	6.14	5.60	7.86	7.41	11.75	11.68	17.71	17.58	27.97	2.58
[150″]	(8.4)	(10.5)	(13.9)	(20.1)	(18.4)	(25.8)	(24.3)	(38.6)	(38.3)	(58.1)	(57.7)	(91.8)	(8.5)
5.08	3.44	4.27	5.67	8.20	7.50	10.50	9.91	15.70	15.61	23.66	23.54	37.39	3.45
[200~]	(11.3)	(14.0)	(18.6)	(26.9)	(24.6)	(34.5)	(32.5)	(51.5)	(51.2)	(77.6)	(77.2)	(122.7)	(11.3)
7.62	5.18	6.43	8.53	12.33	11.28	15.79	14.91	23.59	23.49	35.56	35.46	56.24	
[300″]	(17.0)	(21.1)	(28.0)	(40.4)	(37.0)	(51.8)	(48.9)	(77.4)	(77.1)	(116.7)	(116.3)	(184.5)	(-)
10.16	6.93	8.59	11.39	16.45	15.07	21.07	19.90	31.48	31.36	47.46	47.38	75.08	
[400~]	(22.7)	(28.2)	(37.4)	(54.0)	(49.4)	(69.1)	(65.3)	(103.3)	(102.9)	(155.7)	(155.4)	(246.3)	(-)
12.70	8.67	10.75	14.25	20.58	18.86	26.36	24.90	39.37	39.23	59.36	59.30	93.93	-
[500″]	(28.5)	(35.3)	(46.7)	(67.5)	(61.9)	(86.5)	(81.7)	(129.2)	(128.7)	(194.7)	(194.6)	(308.2)	(-)
15.24	10.42	12.91	17.11	24.70	22.64	31.65	29.89	47.25	47.11	71.25	71.22	112.77	
[600"]	(34.2)	(42.3)	(56.1)	(81.0)	(74.3)	(103.8)	(98.1)	(155.0)	(154.6)	(233.8)	(233.7)	(370.0)	

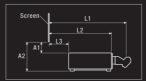
PT-RW630	(16:10	aspec	t ratio)									unit:	meters (feet)
Diagonal						Thr	row dista	ınce					
image size	ET-DLE085 [0.8-1.0:1]		ET-DLE150 [1.4-2.0:1]		Suppli	Supplied lens [1.8-2.5:1]		ET-DLE250 [2.4-3.8:1]		ET-DLE350 [3.8-5.7:1]		.E450	ET-DLE055 [0.8:1]
[throw ratio]					[1.8-							9.0:1]	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
1.27	0.87	1.09	1.45	2.12	1.91	2.70	2.54	4.06	4.00	6.11	5.96	9.59	0.87
[50"]	(2.8)	(3.6)	(4.7)	(6.9)	(6.3)	(8.9)	(8.3)	(13.3)	(13.1)	(20.1)	(19.5)	(31.5)	(2.9)
2.03	1.42	1.77	2.35	3.42	3.11	4.37	4.12	6.55	6.48	9.86	9.71	15.53	1.42
[80"]	(4.7)	(5.8)	(7.7)	(11.2)	(10.2)	(14.3)	(13.5)	(21.5)	(21.3)	(32.3)	(31.9)	(51.0)	(4.7)
2.54	1.78	2.22	2.95	4.28	3.90	5.48	5.16	8.20	8.13	12.36	12.21	19.49	1.79
[100"]	(5.9)	(7.3)	(9.7)	(14.0)	(12.8)	(18.0)	(16.9)	(26.9)	(26.7)	(40.5)	(40.1)	(63.9)	(5.9)
3.81	2.70	3.36	4.45	6.45	5.89	8.25	7.79	12.35	12.27	18.61	18.47	29.38	2.71
[150"]	(8.9)	(11.0)	(14.6)	(21.2)	(19.3)	(27.1)	(25.5)	(40.5)	(40.2)	(61.0)	(60.6)	(96.4)	(8.9)
5.08	3.61	4.49	5.95	8.61	7.88	11.03	10.41	16.49	16.40	24.85	24.73	39.28	3.63
[200"]	(11.9)	(14.7)	(19.5)	(28.3)	(25.8)	(36.2)	(34.2)	(54.1)	(53.8)	(81.5)	(81.1)	(128.9)	(11.9)
7.62	5.45	6.76	8.95	12.95	11.85	16.58	15.65	24.77	24.67	37.34	37.25	59.06	-
[300"]	(17.9)	(22.2)	(29.4)	(42.5)	(38.9)	(54.4)	(51.4)	(81.3)	(80.9)	(122.5)	(122.2)	(193.8)	
10.16	7.28	9.02	11.96	17.28	15.83	22.13	20.90	33.05	32.94	49.84	49.76	78.85	-
[400"]	(23.9)	(29.6)	(39.2)	(56.7)	(51.9)	(72.6)	(68.6)	(108.4)	(108.1)	(163.5)	(163.3)	(258.7)	
12.70	9.11	11.29	14.96	21.61	19.80	27.68	26.14	41.34	41.20	62.33	62.28	98.64	
[500"]	(29.9)	(37.0)	(49.1)	(70.9)	(65.0)	(90.8)	(85.8)	(135.6)	(135.2)	(204.5)	(204.3)	(323.6)	(-)
15.24	10.94	13.55	17.96	25.94	23.78	33.23	31.39	49.62	49.47	74.82	74.80	118.43	-
[000]	(35.9)	(44.5)	(58.9)	(85.1)	(78.0)	(109.0)	(103.0)	(162.8)	(162.3)	(245.5)	(245.4)	(388.5)	(-)

0 aspect ratio)	unit: meters (fee
670 with ET-DLE030	
0 aspect ratio)	unit: meters (fe

				unit. met	ers (reet)
Diagonal	L1	L2	L3	A1	A2
image size	Throw ratio 0.38:1				
2.54	0.82	0.65	0.12	0.43	0.63
[100"]	(2.7)	(2.1)	(0.4)	(1.4)	(2.1)
3.81	1.23	1.06	0.52	0.68	0.88
[150"]	(4.0)	(3.5)	(1.7)	(2.2)	(2.9)
5.08	1.63	1.47	0.93	0.93	1.13
[200"]	(5.4)	(4.8)	(3.0)	(3.1)	(3.7)
7.62	2.45	2.28	1.74	1.43	1.63
[300"]	(8.0)	(7.5)	(5.7)	(4.7)	(5.4)
8.89	2.85	2.69	2.15	1.69	1.89
[350"]	(9.4)	(8.8)	(7.1)	(5.5)	(6.2)

PT-RW630 with ET-DLE030 (16:10 aspect ratio)

					2010 (100
Diagonal	L1	L2	L3	A1	A2
image size	Throw ratio 0.40:1				
2.54	0.86	0.69	0.16	0.59	0.79
[100"]	(2.8)	(2.3)	(0.5)	(1.9)	(2.6)
3.81	1.29	1.12	0.58	0.92	1.12
[150"]	(4.2)	(3.7)	(1.9)	(3.0)	(3.7)
5.08	1.71	1.55	1.01	1.25	1.45
[200"]	(5.6)	(5.1)	(3.3)	(4.1)	(4.7)
7.62	2.57	2.40	1.87	1.91	2.11
[300"]	(8.4)	(7.9)	(6.1)	(6.3)	(6.9)
8.89	3.00	2.83	2.29	2.24	2.44
[350"]	(9.8)	(9.3)	(7.5)	(7.3)	(8.0)



- 11: Distance from the mirror surface to the screen.
- L2: Distance from the projector front to the screen. L3: Distance from the projector rear to the screen
- A1: Height from the edge of the screen to the top of the
- A2: Height from the edge of the screen to the bottom of the projector

NOTE: L3 is not the distance from the projector's rear panel to a wall, but the distance from the projector's rear panel to the screen. Provide an exhaust cooling space of 500 mm (1 foot 8 inches) or more between the rear panel of the projector and a wall or other obstruction. If installing it in an enclosed space, add a separate air conditioning or ventilation system. If ventilation is insufficient, exhaust heat may accumulate and trip the projector's protective circuit.

- All construction work should be done by a qualified technician.
- Off-axis angle projection is required because of the unique ultra-short throw feature. Make sure that there are no obstructions in the light path.

## **Panason**

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