# Panasonic BUSINESS

# RZ970 Series

1-Chip DLP™ Projectors

PT-RZ970/RW930/RX110 PT-RZ870 PT-RZ770/RW730 PT-RZ660/RW620



## Vision realized on a grander scale



III

Worldwide Olympic Partner







# For High-Impact Images in Any Space, We Have the Answer



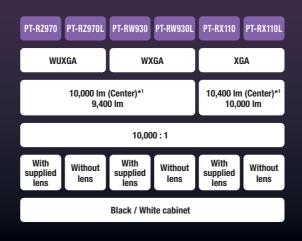
Applications for our 6,000–10,000-lumen RZ970 Series laser projector lineup extend from education, exhibition, and signage through to events and staging. With a shared design philosophy, these compact 1-Chip DLP<sup>™</sup> projectors deliver picture quality approaching that of our 3-Chip DLP<sup>™</sup> models while retaining flexibility for a stress-free installation. The series not only leads the field in outright image quality; it also provides the stable, consistent, low-maintenance performance that professional users demand.



\* At this time, brightness will have decreased to about half its original level (Dynamic Contrast: Mode 3, Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after about 20,000 hours. Light source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required within a shorter period.



### PT-RZ970 Series



## PT-RZ870 Series



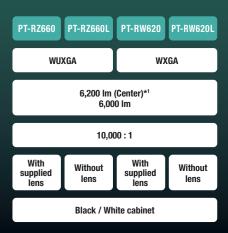
# PT-**RZ770** Series

PT-RZ770	PT-RZ770L	PT						
WU	XGA							
7,200 lm (Cen 7,000 lm								
10,000 : 1								
With supplied lens	Without lens	sı						
	Black / Wh	ite c						





### PT-RZ660 Series



### **Powerful Brightness, Excellent Picture** Quality, Lasting Reliability

#### Superior White Balance and Color Reproduction

The Quartet Color Harmonizer wheel mechanism captures a wider color space than comparable projectors, which allows white to be reproduced realistically on screen. Some conventional projectors can't achieve an accurate white balance, so images can appear with a distracting greenish tint. Not the case with Panasonic SOLID SHINE Laser projectors.



#### Dynamic Contrast Function for High Contrast

The RZ970 Series directly modulates laser power output to achieve high contrast with low power consumption. Digitally controlled frame-by-frame scene-linking modulation ensures highly precise output adjustment, while accurate 10,000:1\*1 contrast is delivered even when bright and dark scenes frequently interchange.





Bright Image

Dark Image

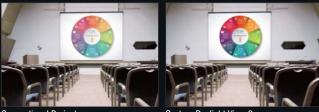
### Detail Clarity Processor 3 Sharpens the Finest Details

This unique Panasonic circuit optimizes the sharpness of each image based on the super high, high, medium, and low frequency components of the extracted image information. The resulting images are expressed with natural, convincing realism.



#### System Daylight View 3 for Sharp and Vivid Images in Bright Environments

Panasonic's original System Daylight View 3 prevents images from washing out in well-lit environments and enhances brightness perception in multi-projector mapping applications by adjusting sharpness and gamma curves and correcting colors. The result is greater visual impact even in challenging conditions.



Conventional Projector

System Daylight View 3

#### **Consistent, Stable Performance**

#### Stable 24/7 Operation with Light-Source Failover Protection

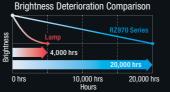
Dual Drive Laser Optical Engine groups laser diodes into two discrete modules. A failsafe redundancy circuit works to minimize brightness- and color-uniformity loss should a laser diode fail, making the RZ970 Series ideal for mission-critical applications. Further, brightness decreases more gradually and consistently than lamp-based projectors over a 20,000-hour\*<sup>2</sup> maintenance-free projection period.



#### SOLID SHINE Laser Maintains Image Quality Longer

Two long-lasting solid-state laser modules ensure the image-color and brightness ramp is gradual, declining slowly and consistently over a far longer period than lamp-based products. And because there are no lamps to replace, maintenance

cost and projector downtime is reduced. In Normal Mode, RZ970 Series projectors can work continuously for about 20,000 hours\*2. In Eco Mode, operation is extended to around 24,000 hours\*2 of continuous projection, making these units ideal for roles in education and signage.



#### **Dust-Resistant Airtight Optical Block**

The RZ970 Series' optical block is airtight, ensuring consistent, long-lasting image quality for up to 20,000 hours\*2 without maintenance. The optical block design passed stringent testing to assure utmost reliability in environments with up to 0.15 mg of particulate matter per cubic meter (based on American Society of Heating, Refrigerating, and Air-Conditioning Engineers [ASHRAE] and Japanese Building Maintenance Association guidelines). The structure prevents brightness degradation from dust intrusion.

Clean Environment	WHO Europe Guideline for Dust Resistance	Japanese Building Maintenance Association ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers)				
0.030 mg/m <sup>3</sup>	0.110 mg/m <sup>3</sup>	0.150 mg/m³				
CLEAN		DUSTY				
		Panasonic Dust Test Standard				

#### Up to 10 Years\*<sup>3</sup> Operation with **Constant Brightness Modes**

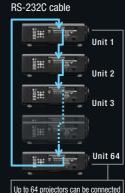
In environments where full brightness is not necessary, such as surveillance, control, and simulation rooms, constant operation modes extend light-source replacement to up to 87,600 hours\*3 in Long Life 3 Mode—about 10 years of 24/7 projection-with consistent brightness and color.

\*1 With Dynamic Contrast Mode set to 3. \*2 At this time, brightness will have decreased to about half its original level (Dynamic Contrast: Mode 3. Image Mode: Dynamic). Panasonic recommends cleaning or checkup at point of purchase after about 20.000 hours. Light source lifetime may be reduced depending on environmental conditions. Replacement of parts other than the light source may be required within a shorter period. \*3 With Operating Mode set to Long Life 3. Long Life Mode is tested in a rear-box projection environment, which is not compliant with ASHRAE. 24 hours/day x 365 days/year x 10 years = 87,600 hours. Replacement of parts other than the light source may be required in a shorter period.

#### Versatile Installation Flexibility

Unique Contrast Sync and Shutter Sync Function

The RZ970 Series is among the world's first to feature Contrast Sync and Shutter Sync functions (Patent Pending) for multi-screen and mapping applications. Contrast Sync allows the projectors' digitally modulated contrast function to be synchronized over the network for consistent picture quality across screens, while Shutter Sync incorporates a master/slave principle to synchronize shutter on/off timing between all networked projectors. It includes simultaneous fade-in and fade-out functions.



Note: Use of RS-232C straight cable is necessary for all connections. Consult your sales representative for further information.



Image luminance of all projectors is averaged for unified Dynamic Contrast, rather than each unit setting Dynamic Contrast separately. Step noise is eliminated in edge-blended areas.



slave projectors are linked to a master, shutter ON/OFF timing is uniform' \* Includes fade-in and fade-out effects. Projector shutter functions can be set to operate individually if desired.

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

- Edge Blending Edges of adjacent screens can be blended and their luminance controlled.
- **Color Matching** Corrects for slight variations in the color reproduction range of individual projectors. PC software assures easy, accurate control.



#### Multi-Unit Brightness and Color Control

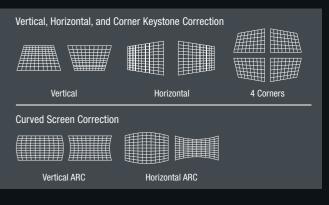
This function automatically corrects brightness and color fluctuations that occur over time in individual projectors in a multi-screen system. Control up to eight projectors connected via hub increasing to a maximum of 2,048 projectors with Multi Monitoring & Control Software.



Without Multi-Unit Brightness and Color Control With Multi-Unit Brightness and Color Control

#### Geometric Adjustment for Custom Screen Surfaces

Geo Adjustment adapts the image for projection onto spherical, cylindrical, and other specially shaped screens. Fine-tuning is performed with the remote control, with no external equipment needed. Paired with Multi-Screen Support System, highly creative mapping presentations are possible in variety of event and staging applications.



#### Geometry Manager Pro Software

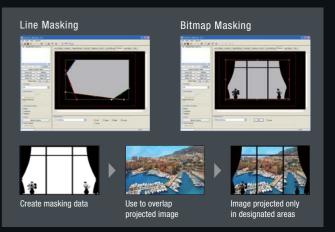
(PT-RZ970/RZ870/RZ770/RZ660 Only)

Geometry Manager Pro software expands built-in functionality and makes complex adjustments easy. The free software package includes enhanced color matching and edge blending for multi-screen projection and adjustment of multiple screens over the network.

### Optional ET-UK20 Upgrade Kit for

Geometry Manager Pro (PT-RZ970/RZ870/RZ770/RZ660 Only)

An optional ET-UK20 Upgrade Kit for Geometry Manager Pro adds creative masking capability using four lines or bitmap data as well as uniformity correction and correction area expansion.



#### **Optional ET-CUK10 Series Auto Screen** Adjustment Upgrade Kit (PT-RZ970/RZ870/RZ770/RZ660 Only)

This optional kit activates the Auto Screen Adjustment plug-in software for Geometry Manager Pro, allowing you to set up multiple projectors automatically and simultaneously and save significant amounts of time and money. Performing multi-screen and curved-screen projection calibration in three quick steps using a camera<sup>\*4</sup> and PC connected to the projector network, this software encompasses geometric adjustment, edge blending, color matching, stacking, brightness, and black level

\*4 Supported cameras: Nikon D5200/D5300/D5500

#### Easy System Flexibility

#### Single-Cable DIGITAL LINK Control and Video Connection

Upward HDBaseT<sup>™</sup>-compatible DIGITAL LINK supports transmission of uncompressed Full HD video and control commands through a single CAT 5e or higher STP cable for distances of up to 150 m (492 ft)\*5. Add an optional DIGITAL



LINK Switcher or Digital Interface Box to further simplify installation in large venues while reducing cost and improving reliability at the same time.

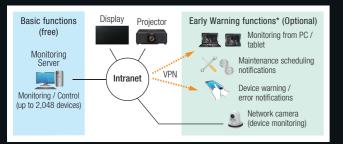


#### Supports Art-Net DMX, Crestron Connected<sup>™</sup>, and PJLink<sup>™</sup>

The RZ970 Series is compatible with Art-Net DMX protocol for lighting management. This allows the projector to be connected to a lighting console, opening the door to a range of added functionality and control options. The included LAN/DIGITAL LINK terminal also supports Crestron Connected<sup>™</sup> and PJLink<sup>™</sup> (Class 1) for easy integration of these projectors into an existing AV network utilizing multiple device brands.

#### Multi Monitoring & Control Software

Panasonic Multi Monitoring & Control Software supports up to 2,048 devices over LAN and features system map visualization or auto-search of devices to be registered. The free software is available with Early Warning functions (automatic free 90-day trial available). These advanced functions enable real-time monitoring, abnormality detection, and notification before servicing is required. Administrators can achieve seamless control and real-time monitoring while preventing potential problems, saving time, and enhancing system reliability.



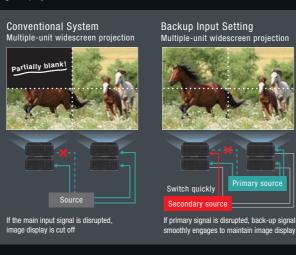
\* Software functionality varies depending on the model.

#### Quick Start and Quick Off

The laser light-source doesn't require any warm-up, so images appear almost instantly (in about one second\*6) with RZ970 Series projectors. There's also no cool-down period needed when turning the power off at the mains-the projector can be turned on and off any time as necessary.

#### Backup Input Setting Optimizes Performance

This feature allows smooth switching to a backup input signal should the primary signal be disrupted\*7, guaranteeing reliability for mission-critical control rooms, projection mapping, staging, and in other applications where image display must be maintained.



#### Other Valuable Features

- Web Browser Control • Quiet Mode to reduce operational
- noise\*8
- DICOM Simulation Mode\*9
- Rec. 709 mode for HDTV projection • Anti-theft features including chain opening and security bar to provide accurate colors • Customizable start-up logo
- Waveform Monitor for simple yet precise calibration
- Shutter effect with fade in/fade out (configurable in 0.5-second intervals from 0.5 to 4.0 seconds, or to 5-, 7-, or 10-second intervals)

\*5 150 m (492 ft) transmission available only in Long Reach Mode with optional ET-YFB200G DIGITAL LINK Switcher for signals up to 1080/60p (dot-clock frequency 148.5 MH2). Transmission distance is up to 100 m (328 ft) in other cases. \*6 With Quick Startup Mode set to ON. Quick Startup Mode resets to OFF after duration set in Available Period expires. When Quick Startup Mode is set to ON, the projector continues to warm up, increasing power consumption. Image appears in about intersected with the projector continues to warm up, increasing power consumption. Image appears in about interseconds in Normal Standby Mode and about 12 seconds on Eco Standby Mode. '7 Combination of primary/secondary input terminals is fixed. The Backup Input Setting is enabled only when the input signal to the primary and secondary terminals is the same. '8 PT-R2770/670 Series does not support Quiet Mode. '9 This product is not a medical instrument. Do not use for actual medical diagnosis. \*10 The Picture-in-Picture function cannot be used with certain inputs and input signals

• P-in-P function\*10

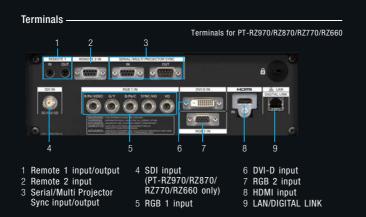
Built-in test pattern

Mode

• Image rotation function

On-screen menu rotatable in Portrait

• ID assignment for up to 64 units



Optional Accessories



Note: Use ET-PKD120H, ET-PKD120S, and ET-PKD130H in combination with ET-PKD130B. ET-PKD130H is recommended when used with ET-DLE030.

**Projection Distances** 

										Distance to :	screen (A)							
Screen size		Zoom ienses len													Fixed-focus lens*1			
(diagonal)		ET-DLE060		ET-DL			ET-DLE105		E150		upplied lens/ET-DLE170		ET-DLE250		ET-DLE350		ET-DLE450	
	4.07 (50%)	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	ET-DLE055
PT-RZ970/ RZ870/	1.27 (50")	0.63 (2.1)		0.82 (2.7)	1.04 (3.4)	1.03 (3.4)		1.38 (4.5)	2.01 (6.6)	1.82 (6.0)		2.42 (7.9)		3.80 (12.5)	5.81 (19.1)	5.66 (18.6)	9.12 (29.9)	
RZ870/ RZ770/	1.52 (60")	0.76 (2.5)		1.00 (3.3)	1.25 (4.1)	1.25 (4.1)	1.70 (5.6)	1.66 (5.5)	2.43 (8.0)	2.20 (7.2)			4.65 (15.3)	4.59 (15.1)	7.00 (23.0)	6.85 (22.5)	11.01 (36.1	/
RZ660	1.78 (70")	0.90 (2.9)			1.47 (4.8)	1.47 (4.8)	1.99 (6.5)	1.95 (6.4)	2.84 (9.3)		3.63 (11.9)			5.38 (17.6)	8.19 (26.9)	8.04 (26.4)		
(16:10	2.03 (80")	1.03 (3.4)			1.68 (5.5)	1.69 (5.5)		2.23 (7.3)	3.25 (10.7)	2.95 (9.7)			1 /	6.16 (20.2)	9.38 (30.8)	9.23 (30.3)	14.78 (48.5	/ /
aspect	2.29 (90")	1.17 (3.8)			1.90 (6.2)	1.90 (6.2)		2.52 (8.3)	3.66 (12.0)		4.69 (15.4)		7.02 (23.0)		10.57 (34.7)	10.43 (34.2)		
ratio)	2.54 (100")	1.31 (4.3)		1.70 (5.6)	2.11 (6.9)	2.12 (7.0)	2.86 (9.4)	2.81 (9.2)	4.08 (13.4)	3.71 (12.2)		4.92 (16.1)	7.81 (25.6)		11.76 (38.6)	11.62 (38.1)	18.55 (60.8	
	3.05 (120")	1.58 (5.2)		2.05 (6.7)	2.55 (8.4)	2.55 (8.4)		3.38 (11.1)	4.90 (16.1)	4.47 (14.7)				9.31 (30.6)	14.14 (46.4)	14.00 (45.9)		
	3.81 (150")	1.99 (6.5)	2.63 (8.6)	2.57 (8.4)	3.19 (10.5)	3.20 (10.5)	4.32 (14.2)	4.24 (13.9)	6.14 (20.1)	5.60 (18.4)		7.41 (24.3)		11.68 (38.3)	17.71 (58.1)	17.58 (57.7)	· · · · ·	/
	5.08 (200")	2.67 (8.7)			4.27 (14.0)	4.29 (14.1)		5.67 (18.6)	8.20 (26.9)		10.50 (34.5)	9.91 (32.5)		15.61 (51.2)		23.54 (77.2)		/ /
	6.35 (250")	3.35 (11.0)	1 1		5.35 (17.6)	5.37 (17.6)	7.23 (23.7)		10.26 (33.7)		13.14 (43.1)			19.55 (64.1)		29.50 (96.8)		7
	7.62 (300")	4.03 (13.2)		5.18 (17.0)	6.43 (21.1)	6.46 (21.2)			12.33 (40.4)		15.79 (51.8)				35.56 (116.7)	35.46 (116.3)		/
	10.16 (400")	5.39 (17.7)	7.11 (23.3)	6.93 (22.7)	8.59 (28.2)		11.59 (38.0)		16.45 (54.0)		21.07 (69.1)	19.90 (65.3)			47.46 (155.7)	47.38 (155.4)		/
	12.70 (500~)	6.75 (22.1)			10.75 (35.3)		14.50 (47.6)		20.58 (67.5)		26.36 (86.5)		39.37 (129.2)	39.23(128.7)		59.30 (194.6)		
	15.24 (600")	8.11 (26.6)		10.42 (34.2)	12.91 (42.3)	12.97 (42.6)	17.41 (57.1)	()	24.70 (81.0)		31.65(103.8)		47.25 (155.0)	,	71.25 (233.8)	71.22 (233.7)	1	/
PT-RW930/	1.27 (50")	0.66 (2.2)	0.89 (2.9)	0.87 (2.8)	1.09 (3.6)	1.09 (3.6)	1.48 (4.9)	1.45 (4.7)	2.12 (6.9)	1.91 (6.3)	2.70 (8.9)	2.54 (8.3)	4.06 (13.3)	4.00 (13.1)	6.11 (20.1)	5.96 (19.5)	9.59 (31.5	) 0.87 (2.9)
RW730/	1.52 (60")	0.80 (2.6)	1.08 (3.5)	1.05 (3.4)	1.32 (4.3)	1.32 (4.3)	1.79 (5.9)	1.75 (5.7)	2.55 (8.4)	2.31 (7.6)	3.26 (10.7)	3.07 (10.1)	4.89 (16.0)	4.83 (15.8)	7.36 (24.2)	7.21 (23.6)	11.57 (38.0)	) 1.06 (3.5)
RW620	1.78 (70")	0.94 (3.1)	1.26 (4.1)	1.23 (4.1)	1.54 (5.1)	1.54 (5.1)	2.09 (6.9)	2.05 (6.7)	2.98 (9.8)	2.71 (8.9)	3.81 (12.5)	3.59 (11.8)	5.72 (18.8)	5.65 (18.5)	8.61 (28.2)	8.46 (27.8)	13.55 (44.5	) 1.24 (4.1)
(16:10	2.03 (80")	1.09 (3.6)	1.45 (4.8)	1.42 (4.7)	1.77 (5.8)	1.77 (5.8)	2.40 (7.9)	2.35 (7.7)	3.42 (11.2)	3.11 (10.2)	4.37 (14.3)	4.12 (13.5)	6.55 (21.5)	6.48 (21.3)	9.86 (32.3)	9.71 (31.9)	15.53 (51.0)	) 1.42 (4.7)
aspect ratio)	2.29 (90~)	1.23 (4.0)	1.64 (5.4)	1.60 (5.3)	2.00 (6.5)	2.00 (6.6)	2.70 (8.9)	2.65 (8.7)	3.85 (12.6)	3.50 (11.5)	4.92 (16.2)	4.64 (15.2)	7.38 (24.2)	7.31 (24.0)	11.11 (36.4)	10.96 (36.0)	17.51 (57.4	) 1.61 (5.3)
1410)	2.54 (100")	1.37 (4.5)	1.83 (6.0)	1.78 (5.9)	2.22 (7.3)	2.23 (7.3)	3.01 (9.9)	2.95 (9.7)	4.28 (14.0)	3.90 (12.8)	5.48 (18.0)	5.16 (16.9)	8.20 (26.9)	8.13 (26.7)	12.36 (40.5)	12.21 (40.1)	19.49 (63.9)	) 1.79 (5.9)
	3.05 (120")	1.66 (5.4)	2.20 (7.2)	2.15 (7.1)	2.68 (8.8)	2.68 (8.8)	3.62 (11.9)	3.55 (11.6)	5.15 (16.9)	4.70 (15.4)	6.59 (21.6)	6.21 (20.4)	9.86 (32.4)	9.79 (32.1)	14.86 (48.7)	14.72 (48.3)	23.45 (76.9)	) 2.16 (7.1)
	3.81 (150")	2.09 (6.8)	2.77 (9.1)	2.70 (8.9)	3.36 (11.0)	3.37 (11.1)	4.54 (14.9)	4.45 (14.6)	6.45 (21.2)	5.89 (19.3)	8.25 (27.1)	7.79 (25.5)	12.35 (40.5)	12.27 (40.2)	18.61 (61.0)	18.47 (60.6)	29.38 (96.4	) 2.71 (8.9)
	5.08 (200")	2.80 (9.2)	3.71 (12.2)	3.61 (11.9)	4.49 (14.7)	4.51 (14.8)	6.06 (19.9)	5.95 (19.5)	8.61 (28.3)	7.88 (25.8)	11.03 (36.2)	10.41 (34.2)	16.49 (54.1)	16.40 (53.8)	24.85 (81.5)	24.73 (81.1)	39.28 (128.9)	) 3.63 (11.9)
	6.35 (250")	3.52 (11.5)	4.65 (15.2)	4.53 (14.9)	5.62 (18.4)	5.65 (18.5)	7.59 (24.9)	7.45 (24.5)	10.78 (35.4)	9.86 (32.4)	13.81 (45.3)	13.03 (42.8)	20.63 (67.7)	20.53 (67.4)	31.10 (102.0)	30.99 (101.7)	49.17 (161.3	) –
	7.62 (300")	4.23 (13.9)	5.59 (18.3)	5.45 (17.9)	6.76 (22.2)	6.78 (22.3)	9.12 (29.9)	8.95 (29.4)	12.95 (42.5)	11.85 (38.9)	16.58 (54.4)	15.65 (51.4)	24.77 (81.3)	24.67 (80.9)	37.34 (122.5)	37.25 (122.2)	59.06 (193.8)	) –
	10.16 (400")	5.66 (18.6)	7.47 (24.5)	7.28 (23.9)	9.02 (29.6)	9.06 (29.7)	12.17 (39.9)	11.96 (39.2)	17.28 (56.7)	15.83 (51.9)	22.13 (72.6)	20.90 (68.6)	33.05 (108.4)	32.94 (108.1)	49.84 (163.5)	49.76 (163.3)	78.85 (258.7	) –
	12.70 (500")	7.09 (23.2)	9.35 (30.7)	9.11 (29.9)	11.29 (37.0)	11.34 (37.2)	15.23 (50.0)	14.96 (49.1)	21.61 (70.9)	19.80 (65.0)	27.68 (90.8)	26.14 (85.8)	41.34 (135.6)	41.20(135.2)	62.33 (204.5)	62.28 (204.3)	98.64 (323.6)	) –
	15.24 (600")	8.51 (27.9)	11.23 (36.8)	10.94 (35.9)	13.55 (44.5)	13.62 (44.7)	18.29 (60.0)	17.96 (58.9)	25.94 (85.1)	23.78 (78.0)	33.23(109.0)	31.39(103.0)	49.62 (162.8)	49.47 (162.3)	74.82 (245.5)	74.80 (245.4)	118.42 (388.5	) –
PT-RX110	1.27 (50")	0.61 (2.0)	0.82 (2.7)	0.81 (2.6)	1.01 (3.3)	1.01 (3.3)	1.38 (4.5)	1.34 (4.4)	1.97 (6.5)	1.78 (5.8)	2.51 (8.2)	2.36 (7.7)	3.78 (12.4)	3.71 (12.2)	5.68 (18.6)	5.52 (18.1)	8.91 (29.2)	) 0.81 (2.7)
(4:3	1.52 (60")	0.74 (2.4)	1.00 (3.3)	0.98 (3.2)	1.22 (4.0)	1.22 (4.0)	1.66 (5.4)	1.62 (5.3)	2.37 (7.8)	2.15 (7.0)	3.03 (9.9)	2.85 (9.3)	4.55 (14.9)	4.48 (14.7)	6.84 (22.5)	6.69 (21.9)	10.75 (35.3)	) 0.98 (3.2)
aspect	1.78 (70")	0.88 (2.9)	1.17 (3.8)	1.15 (3.8)	1.43 (4.7)	1.43 (4.7)	1.94 (6.4)	1.90 (6.2)	2.77 (9.1)	2.52 (8.3)	3.55 (11.6)	3.34 (11.0)	5.32 (17.5)	5.25 (17.2)	8.01 (26.3)	7.86 (25.8)	12.60 (41.3)	) 1.15 (3.8)
ratio)	2.03 (80")	1.01 (3.3)	1.35 (4.4)	1.32 (4.3)	1.64 (5.4)	1.65 (5.4)	2.23 (7.3)	2.18 (7.2)	3.18 (10.4)	2.89 (9.5)	4.06 (13.3)	3.83 (12.6)	6.09 (20.0)	6.02 (19.8)	9.17 (30.1)	9.02 (29.6)	14.44 (47.4	) 1.32 (4.3)
	2.29 (90~)	1.14 (3.7)	1.52 (5.0)	1.49 (4.9)	1.85 (6.1)	1.86 (6.1)	2.51 (8.2)	2.46 (8.1)	3.58 (11.7)	3.26 (10.7)	4.58 (15.0)	4.31 (14.2)	6.86 (22.5)	6.79 (22.3)	10.33 (33.9)	10.19 (33.4)	16.28 (53.4	) 1.49 (4.9)
	2.54 (100")	1.27 (4.2)		1.66 (5.4)	2.07 (6.8)	2.07 (6.8)	2.80 (9.2)	2.74 (9.0)	3.98 (13.1)	3.63 (11.9)	5.10 (16.7)	4.80 (15.8)	7.63 (25.0)	7.56 (24.8)	11.50 (37.7)	11.35 (37.2)	18.12 (59.5	) 1.66 (5.5)
	3.05 (120")	1.54 (5.1)	2.05 (6.7)	2.00 (6.6)		2.49 (8.2)		3.30 (10.8)	4.79 (15.7)	4.37 (14.3)					13.82 (45.3)	13.68 (44.9)		/ / /
	3.81 (150")	1.94 (6.4)			3.12 (10.2)	3.13 (10.3)		4.14 (13.6)	6.00 (19.7)		7.68 (25.2)			11.41 (37.4)	17.31 (56.8)	17.18 (56.4)		
	5.08 (200")	2.60 (8.5)			4.18 (13.7)	4.19 (13.8)		5.54 (18.2)	8.02 (26.3)		10.26 (33.7)	9.69 (31.8)		(· )	23.13 (75.9)	23.00 (75.5)		/
	6.35 (250")	3.27 (10.7)	4.32 (14.2)	4.21 (13.8)	5.23 (17.2)	5.25 (17.2)	7.06 (23.2)	6.94 (22.8)	10.03 (32.9)		12.85 (42.2)	12.13 (39.8)			28.94 (95.0)	28.83 (94.6)	45.75 (150.1)	
	7.62 (300")	3.93 (12.9)	5.20 (17.1)		6.29 (20.6)	6.31 (20.7)			12.05 (39.5)		15.43 (50.6)		23.06 (75.6)		34.76 (114.0)	34.66 (113.7)	· · · ·	·
	10.16 (400~)	5.26 (17.3)		6.77 (22.2)	8.40 (27.5)		11.33 (37.2)		16.08 (52.8)		20.60 (67.6)				46.39 (152.2)	46.31 (151.9)		/
	12.70 (500~)	6.59 (21.6)		8.48 (27.8)	10.51 (34.5)	/	14.18 (46.5)	13.92 (45.7)			25.77 (84.5)		38.48 (126.2)	38.35(125.8)		57.96 (190.2)		/
	15.24 (600")		10.45 (34.3)				17.02 (55.8)		24.15 (79.2)		30.94(101.5)				69.65 (228.5)	69.61 (228.4)		/
	13.24 (000 )	1.32 (20.0)	10.40 (04.0)	10.10(33.4)	12.02 (41.4)	112.00 (41.0)	11.UZ (JJ.0)	10.72 (34.9)	27.13(13.2)	22.13(12.0)	00.34(101.3)	23.22 (33.9)	0.15(101.0)	40.03 (131.1)	03.03 (220.3)	03.01 (220.4)	110.23 (301.0	<u> </u>

						Unit: meters (feet							
Screen size	2	ET-DLE030 Ultra-Short-Throw Lens*2											
(diagonal)	-		Projection distance	Close-up system dimensions									
(ulugoliul)		(A)	(B)	(C)	(D)	(E)							
PT-RZ970/	2.54 (100")	0.82 (2.7)	0.65 (2.1)	0.11 (0.4)	0.43 (1.4)	0.63 (2.1)							
RZ870/	3.05 (120")	0.98 (3.2)	0.81 (2.7)	0.28 (0.9)	0.53 (1.7)	0.73 (2.4)							
RZ770/	3.81 (150")	1.23 (4.0)	1.06 (3.5)	0.52 (1.7)	0.68 (2.2)	0.88 (2.9)							
RZ660	5.08 (200")	1.63 (5.3)	1.46 (4.8)	0.93 (3.1)	0.93 (3.1)	1.13 (3.7)							
(16:10	6.35 (250")	2.04 (6.7)	1.87 (6.1)	1.34 (4.4)	1.18 (3.9)	1.38 (4.5)							
aspect ratio)	7.62 (300")	2.45 (8.0)	2.28 (7.5)	1.74 (5.7)	1.43 (4.7)	1.63 (5.4)							
	8.89 (350~)	2.85 (9.4)	2.68 (8.8)	2.15 (7.1)	1.69 (5.5)	1.89 (6.2)							
PT-RW930/	2.54 (100")	0.86 (2.8)	0.69 (2.3)	0.16 (0.5)	0.59 (1.9)	0.79 (2.6)							
RW730/	3.05 (120")	1.03 (3.4)	0.86 (2.8)	0.33 (1.1)	0.72 (2.4)	0.92 (3.0)							
RW620	3.81 (150")	1.29 (4.2)	1.12 (3.7)	0.58 (1.9)	0.92 (3.0)	1.12 (3.7)							
(16:10	5.08 (200")	1.71 (5.6)	1.54 (5.1)	1.01 (3.3)	1.25 (4.1)	1.45 (4.8)							
aspect	6.35 (250")	2.14 (7.0)	1.97 (6.5)	1.44 (4.7)	1.58 (5.2)	1.78 (5.8)							
ratio)	7.62 (300")	2.57 (8.4)	2.40 (7.9)	1.86 (6.1)	1.91 (6.3)	2.11 (6.9)							
	8.89 (350")	3.00 (9.8)	2.83 (9.3)	2.29 (7.5)	2.24 (7.3)	2.44 (8.0)							
PT-RX110	2.54 (100")	0.80 (2.6)	0.63 (2.1)	0.10 (0.3)	0.41 (1.3)	0.61 (2.0)							
(4:3	3.05 (120")	0.96 (3.1)	0.79 (2.6)	0.26 (0.9)	0.50 (1.6)	0.70 (2.3)							
aspect	3.81 (150")	1.20 (3.9)	1.03 (3.4)	0.49 (1.6)	0.65 (2.1)	0.85 (2.8)							
ratio)	5.08 (200~)	1.60 (5.2)	1.43 (4.7)	0.89 (2.9)	0.88 (2.9)	1.08 (3.5)							
	6.35 (250~)	1.99 (6.5)	1.83 (6.0)	1.29 (4.2)	1.12 (3.7)	1.32 (4.3)							
	7.62 (300~)	2.39 (7.8)	2.23 (7.3)	1.69 (5.5)	1.36 (4.5)	1.56 (5.1)							
	8.89 (350")	2.79 (9.2)	2.62 (8.6)	2.09 (6.9)	1.60 (5.2)	1.80 (5.9)							

\*1 Optical axis shift cannot be operated when using ET-DLE055, \*2 Optical axis is fixed to center when using ET-DLE030.

#### ET-UK20 (PT-BZ970/BZ870/BZ770/BZ660 only) Geometry Manager Pro Upgrade Kit

### (PT-RZ970/RZ870/RZ770/RZ660 only)

Auto Screen Adjustment Upgrade Kit Note: Available worldwide except in the United States.

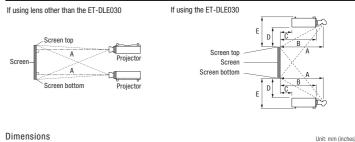
Note: Part number suffix may differ depending on the

\* Multi Monitoring & Control Software Ver. 2.0 or later is required. Please download from the following website: https://panasonic.net/cns/projector/download/application.

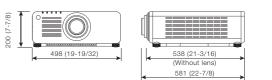


Unit: meters (feet

#### **Dimension Definitions**



#### Dimensions



#### Specifications

Model	With supplied lens	PT-RZ970	PT-RW930	PT-RX110	PT-RZ870	PT-RZ770	PT-RW730	PT-RZ660	PT-RW620					
	Without lens	PT-RZ970L	PT-RW930L	PT-RX110L	PT-RZ870L	PT-RZ770L	PT-RW730L	PT-RZ660L	PT-RW620L					
Projector ty	/pe	1-Chip DLP™ projector												
)LP™ chip	Panel size	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	17.8 mm (0.7 in) diagonal (4:3 aspect ratio)	17.0 mm (0.67 in) diagona	I (16:10 aspect ratio)	16.5 mm (0.65 in) diagonal (16:10 aspect ratio)	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)	16.5 mm (0.65 in) diago (16:10 aspect ratio)					
	Display method	DLP™ chip x 1												
	Pixels	2,304,000 (1920 x 1200) pixels	1,024,000 (1280 x 800) pixels	786,432 (1024 x 768) pixels	2,304,000 (1920 x 1200)	) pixels	1,024,000 (1280 x 800) pixels	2,304,000 (1920 x 1200) pixels	1,024,000 (1280 x 80 pixels					
ight sourc	e	Laser diodes: Laser Clas	s 1 (Class 3R for US mod	els)										
Brightness*1		10,000 lm (Center)* <sup>2</sup> 9,400 lm* <sup>3</sup> 8,000 lm (Quiet 1)* <sup>2</sup> 6,000 lm (Quiet 2)* <sup>2</sup>		10,400 lm (Center)*2 10,000 lm*3 8,500 lm (Quiet 1)*2 6,400 lm (Quiet 2)*2	8,800 lm (Center)*2 8,500 lm*3 7,200 lm (Quiet 1)*2 5,400 lm (Quiet 2)*2	7,200 lm (Center)*2 7,000 lm*3		6,200 lm (Center)*2 6,000 lm*3						
esolution		1920 x 1200 pixels	1280 x 800 pixels	1024 x 768 pixels	1920 x 1200 pixels		1280 x 800 pixels	1920 x 1200 pixels	1280 x 800 pixels					
ontrast*2		10,000:1 (Full On/Full O	ff, Dynamic Contrast Moc	le: 3)										
creen size	e (diagonal)	1.27-15.24 m (50-600	in), 1.27-5.08 m (50-20	00 in) with ET-DLE055, 2	2.54–8.89 m (100–350 i	n) with ET-DLE030								
Center-to-c	corner uniformity*2	90 %												
ens	Powered zoom	1.7-2.4:1	1.8-2.5:1		1.7-2.4:1		1.8-2.5:1	1.7-2.4:1	1.8-2.5:1					
	Powered focus	F 1.7–1.9, f 25.6–35.7 r					1							
)ptical ixis	Vertical (powered) (from center of screen)	+50 %, -16 %	+60 %, -16 %	+50 %, -13 %	+50 %, -16 %		+60 %, -16 %	+50 %, -16 %	+60 %, -16 %					
hift* <sup>4*5</sup>	Horizontal (powered) (from center of screen)	+30 %, -10 %												
Ceystone c	orrection range*4	Vertical: ±40° Horizontal	: ±15° Except ET-DLE105/	/085/055/03										
Keystone correction range*4*6 with optional Upgrade Kit ET-UK20		Vertical: ±40° Horizontal: ±40°	_	_	Vertical: ±40° Horizontal: ±40°			Vertical: ±40° Horizontal: ±40°	_					
nstallation		Ceiling/floor, front/rear,	free 360-degree installat	ion										
Terminals	SDI IN	BNC x 1: 3G/HD/SD-SDI input	_	_	BNC x 1: 3G/HD/SD-SDI	l input	_	BNC x 1: 3G/HD/SD-SDI input	_					
	HDMI IN	HDMI 19-pin x 1 (Compa	atible with HDCP, Deep Co	lor)										
	DVI-D IN	DVI-D 24-pin x 1 (DVI 1.	0 compliant, compatible v	vith HDCP, single link)										
	RGB 1 IN	RGB x 1 (BNC x 5): RGB/	YPBPR/YCBCR/YC/VIDEC	)										
	RGB 2 IN	D-sub HD 15-pin (female	e) × 1: RGB/YPBPR/YCBC	R										
	SERIAL/MULTI PROJECTOR Sync in	D-sub 9-pin (female) x 1	for contrast sync/shutter	sync (RS-232C complia	nt)									
	SERIAL/MULTI PROJECTOR SYNC OUT	D-sub 9-pin (male) x 1 for contrast sync/shutter sync (RS-232C link control)												
	REMOTE 1 IN	M3 stereo mini jack x 1 f	for remote control (wired)											
	REMOTE 1 OUT	M3 stereo mini jack x 1 f	or projector connection c	ontrol										
	REMOTE 2 IN	D-sub 9-pin (female) x 1	for external control (para	llel)										
	DIGITAL LINK/LAN	RJ-45 x 1 for network, DIGITAL LINK connection, 100Base-TX, compatible with Art-Net, PJLink™, Deep Color, HDCP												
Power supp	bly	AC 100-240 V, 50/60 H	z											
Power cons	sumption*7	1,050 W Normal: 742 W Eco: 617 W			950 W Normal: 689 W Eco: 583 W	825 W Normal: 593 W Eco: 508 W		700 W Normal: 499 W Eco: 428 W						
	(During standby)	85 W with Quick Startup Mode set to ON, 0.3 W with Standby Mode set to Eco, 3 W with Standby Mode set to Normal												
imensions	With standard Lens													
W x H x D)	Without Lens		(19 <sup>19</sup> / <sub>32</sub> " x 7 <sup>7</sup> / <sub>8</sub> "* <sup>8</sup> x 21 <sup>3</sup>											
/eight* <sup>9</sup>	With standard Lens	Approx. 23.2 kg (51.1 lbs.) Approx. 23.1 kg (50.9 lbs.)												
	Without Lens	Approx. 22.4 kg (49.4 lb	,					Approx. 22.3 kg (49.2 lb	· ·					
abinet ma		Molded plastic						····· ··3 (···· -						
abinet col		Black / White												
Operation r		41 dB / 37 dB [Quiet 1] /	35 dB (Quiet 21			36 dB		35 dB						
	environment		0-45 °C (32-113 °F)* <sup>10</sup> ,	operating humidity: 10-	80 % (no condensation)	0000		100 00						
Applicable			Multi Monitoring & Contro											
		-	-	· · ·		instruction Lass Tract	Coffuero*11 Multi March	ring & Control Cofficient	1) projection less					
anhhiinn ag	ccessories	lens cover (models with		αιτοπος (nu3/AAA type X	. 2), CD-NOW (Operating)	manucuon, Logo franste	Software*11, Multi Monito	ning & Control Software"	.), projection tens cov					

\*1 Value is for the supplied standard zoom lens. The value varies depending on the lens. \*2 The value of the light output at the center region of the projected image is extracted based on the light output measurement method defined by the ISO/EC 21118:2012 international standards, \*3 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2012 international standards, \*4 Figures vary depending on lens used. Please refer to Spec File or Operating Instructors, \*5 Optical axis shift is not supported on the ET-DLE055, and the optical axis is fixed with the ET-DLE030. \*6 When vertical and horizontal keystone are used simultaneously, correction cannot be made exceeding total of 55°. \*7 In conditions with an operating Instructor Mode: Standard, Dynamic Contrast: 2. \*8 With legs at shortest position. \*9 Average value. May differ depending on the actual unit. \*10 When used in locations from 0 m to 4,200 m (0 ft to 13,780 ft) above sea level in Normal Mode, and from 0 m to 2,700 m (0 ft to 8,858 ft) above sea level in other modes. If the ambient temperature exceeds 35 °C (95 °P [130 °C (86 °F) for PT-R2970/RW930/RX110] when used in locations from 0 m to 2,700 m (0 ft to 8,858 ft to 13,780 ft) above sea level, the light output may be reduced to protect the projector. \*11 Not included with PT-R2870. Please download from our global website: https://panasonic.net/cns/projector/download/application/

Note: Hatch area is the numerical value of the supplied standard lens.





For more information about Panasonic projectors, please visit: Projector Global Website – panasonic.net/cns/projector Facebook – www.facebook.com/panasonicprojector YouTube – www.youtube.com/user/PanasonicProjector

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. DLP, DLP logo and DLP Medallion logo are trademarks or registered trademarks of Texas Instruments. The terms HDM and HDM High-Definition Multimedia Interface, and the HDML Logo are trademarks or registered trademarks or segistered trademarks or segistered trademarks or segistered trademarks or program and HDM Licensing Administrator, Inc. in the United States and other countries. PJLink™ is a registered trademark or pending trademark in Japan, the United States, and other countries and regions. All other trademarks are the property of their respective trademark owners. © 2018 Panasonic Corporation. All rights reserved.