

Panasonic

PT-DZ780 Series

1-Chip DLP™ Projectors

PT-DZ780
 PT-DZ780L
 PT-DW750
 PT-DW750L
 PT-DX820
 PT-DX820L



PT-DZ780B

Full Brightness with Virtually Un-noticeable Operation



made in Japan



PT-DZ780B PT-DW750B PT-DX820B
 PT-DZ780LB PT-DW750LB PT-DX820LB

WUXGA	WXGA	XGA
7,000 lm	7,000 lm	8,200 lm

made in Japan



PT-DZ780W PT-DW750W PT-DX820W
 PT-DZ780LW PT-DW750LW PT-DX820LW

WUXGA	WXGA	XGA
7,000 lm	7,000 lm	8,200 lm

The PT-DZ780LB/DZ780LW, PT-DW750LB/DW750LW, and PT-DX820LB/DX820LW are not equipped with a lens.
 The cabinet for each model is available in black (PT-DZ780B/DW750B/DX820B) or white (PT-DZ780W/DW750W/DX820W).



High 8,200^{*1} / 7,000 lm Brightness with Exceptionally Low 30 dB Noise

Panasonic's PT-DZ780 Series projectors feature a redesigned air cooling system that achieves 30-dB quietness even when operating with full brightness. As the quietest projectors^{*2} in their class, they expand usability in noise-critical



situations. Panasonic's original Dynamic RGB Booster also ensures an excellent balance of brightness and color reproduction. The dual lamp system contributes to reliable operation, less downtime, and low maintenance cost.



Outstanding Images with Low-Noise Operation

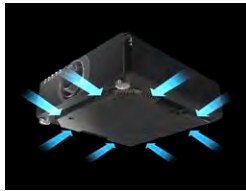
High Brightness of 8,200/7,000 lm

A dual-lamp system using two newly developed, high-output 310 W lamps provides high brightness of 8,200 lm for the PT-DX820 and 7,000 lm for the PT-DZ780/DW750.



Virtually Un-noticeable Operation with 30 dB in Normal Mode

Thanks to a carefully designed airflow control system and cooling fans, operation noise is dramatically reduced to 30 dB even when the



projector is used with the lamps at full power in normal mode, making the PT-DZ780 Series the quietest in its class.^{*2} The projector intakes air from the bottom of the unit and exhausts it from the back, eliminating openings in the front and sides to eliminate noise leakage. The newly developed fans are also positioned to enable the fans to operate efficiently with slower rotation and less noise.

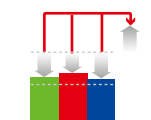
The Dynamic RGB Booster Enhances Both Brightness and Color Reproduction

Panasonic's Dynamic RGB Booster achieves high image quality with levels of color reproduction and brightness that make each color stand out. It



Bright scenes

Colorful scenes



The boost amount is controlled in real time as the images are projected.



combines Panasonic's proprietary Vivid Color Control technology with a Lamp Modulation Drive System for a 1-chip DLP™ projector that produces bright and vivid colors. Images are analyzed frame by frame, and scene-linking and real-time modulation are used to achieve high brightness and vivid color reproduction.

Detail Clarity Processor Brings Depth and Clarity to Details

This advanced image-processing circuit analyzes the video signal frequency range for each scene by extracting data on the distribution of high, mid, and low-frequency components, and brings out fine details accordingly. The resulting images have a more natural, three-dimensional appearance with crisp, clear detail.

Reliable Operation with Low Maintenance Cost and Time

Long-Lasting Lamp Life for up to 4,000^{*3} Hours

The PT-DZ780 Series projectors employ newly developed high-power 310 W lamps that have a long replacement cycle of up to 4,000 hours^{*3} to help lower the total cost of ownership.

Lamp mode	Brightness (lm)		Lamp replacement cycle (hours)
	PT-DZ780/DW750	PT-DX820	
Dual: Normal	7,000	8,200	4,000
Dual: Eco	5,600	6,560	6,000
Single: Normal	3,500	4,100	8,000
Single: Eco	2,800	3,280	12,000

Dust-Resistant Optical Block

The optical block, the heart of the projector, is hermetically sealed to resist the effects of dust and other particles in the air, which makes it possible to remove the air filters for optics. It also contributes to the low TCO.



Liquid Cooling System for a DLP™ chip

Panasonic's unique liquid cooling system directly cools the DLP™ chip to improve performance and enable operation up to 45°C (113°F).^{*4} This allows use in a wider variety of environments, while stabilizing performance and keeping the unit quiet even in harsh conditions.

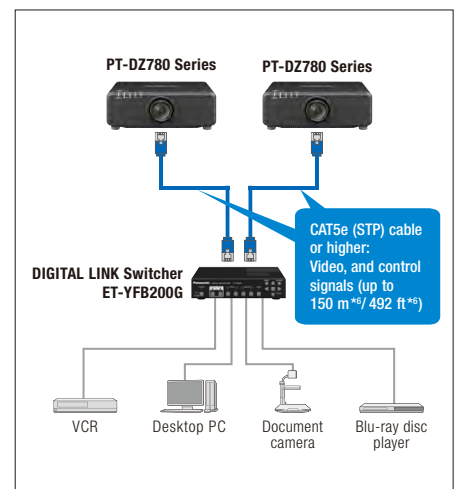
Dual-Lamp System Prevents Image Interruptions

This system eliminates the interruption if a lamp should fail (in dual-lamp operation mode). The Lamp Relay mode also operates the lamps alternately to enable 24/7 projection.^{*5}

Flexible System Functionality

DIGITAL LINK Transmits Digital Signals up to 150 m^{*6} (492 ft^{*6}) with a Single Cable

DIGITAL LINK is an original function added to HDBaseT™ technology. Equipped with a DIGITAL LINK terminal, the PT-DZ780 Series projector allows transmission of HDMI, uncompressed HD digital video, and control signals (Ethernet, RS-232C) for up to 150 m^{*6} (492 ft^{*6}) through a single CAT5e (STP) cable or higher. This simplifies cabling and system upgrades, making it ideal for ceiling-mounted and other permanent installations. A single cable solution can be expanded by using the new DIGITAL LINK switcher ET-YFB200G (optional).



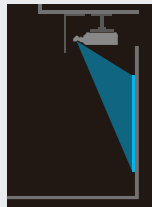
For details on other manufacturers' equipment, visit our Projector Global Web Site:

panasonic.net/prodisplays/solutions/technology/digital_link/

The ET-DLE030 ultra-short throw lens enhances the application flexibility, maximizing the advantage of the PT-DZ780 Series' quiet operation.

Mounting an optional ET-DLE030 onto the PT-DZ780 Series projector enables large-screen projection from a short distance, saving installation space. Quiet operation with full brightness is a great PT-DZ780 Series advantage for applications such as museums, historical buildings, and lecture halls, where silence is critical.

Photo shows the PT-DZ780B with the ET-DLE030 mounted.



Geometric Adjustment for Specially Shaped Screens

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. 4-Corner Adjustment and Keep Aspect Off functions also simplify fine adjustment.



Flexible calibration lets you project onto curved surfaces.

Geometry Manager Pro Freeware (PT-DZ780)

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. Also, a computer can be used to operate this function,*7 and up to three sets of adjustments can be stored.

Optional ET-UK20 Upgrade Kit for Geometry Manager Pro (PT-DZ780)

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

Line masking

Create masking data...

Use it to overlap the projection image...

Bitmap masking:
Detailed masking is also possible with an image of up to 1920 x 1200.

And the image is projected only in the designated areas.

Optional ET-CUK10*8 Auto Screen Adjustment Upgrade Kit (PT-DZ780)

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*9 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.

Multi-Screen Support System Seamlessly Connects Multiple Screens

The Multi-Screen Support System optimally adjusts multiple screens: Edge blending, Color matching and Digital image enlarging.

A Wide Selection of Optional Lenses

A wide variety of lenses add versatility and flexibility to projector installation. The lenses attach and detach with one-touch ease.

Art-Net*10 Compatible

The PT-DZ780 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.

More Valuable Features

- Full-HD ready WUXGA resolution (PT-DZ780).
- System Daylight View 2 for enhanced color perception.
- DICOM simulation mode.*11
- Rec. 709 mode for HDTV projection.
- Full 10-bit image processing.
- Waveform monitor function.
- Powered lens shift/zoom/focus.
- The unit can be rotated 360 degrees vertically.*12
- Backup Input Function*13 prevents downtime by using two inputs.
- Easy lamp replacement from the rear.
- Picture-in-picture function.*14
- SDI (SD-, HD-, and 3G-SDI) input terminal. (PT-DZ780 only)
- Easy remote monitoring and control over a LAN.
- Crestron Connected™ compatibility.
- AMX Device Discovery technology built in.
- Wireless remote control with a maximum operating range of 30 m (98 ft).
- Scheduling function.
- Mechanical lens shutter.
- Direct power off.
- RoHS Directive compliant.
- built-in closed caption decoder.

For details on features and specifications, visit our Projector Global Web Site:
panasonic.net/avc/projector

Optional Accessories

Fixed-focus lens

ET-DLE030, ET-DLE055

Zoom lens

ET-DLE085, ET-DLE150, ET-DLE250, ET-DLE350, ET-DLE450

Replacement lamp unit

ET-LAD70 (one bulb), ET-LAD70W (a set of two bulbs)

Ceiling mount bracket

ET-PKD120H (for high ceilings)
ET-PKD120S (for low ceilings)
ET-PKD130H (for high ceilings, 6-axis adjustment mechanism included) Recommended when used with the ET-DLE030.

Attachment for ceiling mount bracket

ET-PKD130B

Upgrade kit form Geometry Manager Pro

ET-UK20

Auto Screen Adjustment upgrade kit

ET-CUK10*8

Digital Interface Box

ET-YFB100G



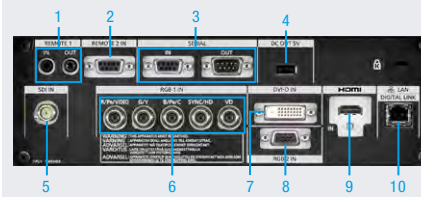
DIGITAL LINK Switcher

ET-YFB200G



Terminals

- | | |
|-----------------------------|---------------------------------|
| 1 Remote 1 input/output | 6 RGB 1 input |
| 2 Remote 2 input | 7 DVI-D input |
| 3 Serial input/output | 8 RGB 2 input |
| 4 DC 5V output | 9 HDMI input |
| 5 LAN input (PT-DZ780 only) | 10 LAN / DIGITAL LINK connector |



*1 For the PT-DX820 only. *2 As of April 2015, for a 1-chip DLP™ projector with the brightness of 7,000 lm or higher. *3 When the Lamp Power is set to Normal. The usage environment affects the lamp replacement cycle. *4 The operating temperature range is 0°C to 40°C (32°F to 104°F) when the fan control is set to High Altitude mode (for altitudes from 1,400 m to 2,700 m (4,593 ft to 8,858 ft) above sea level). Also, if the ambient temperature exceeds 40°C (104°F) (35°C (95°F) in High Altitude mode) when the projector is being used with Lamp Select set to Dual and Lamp Power set to High, the light output may be reduced approximately 20% to protect the projector. *5 If the projector is to be operated continuously 24 hours a day / 7 days a week, use the dual-lamp optical system's alternating lamp operation (lamp changer) function. The projector cannot be operated continuously 24 hours a day / 7 days a week in dual-lamp mode. Allow a minimum of two hours per week of non-operation time per lamp if using the dual-lamp mode. *6 When used together with an optional DIGITAL LINK Switcher ET-YFB200B and operated in Long Reach mode that is available only with the PT-DZ780/DW750/DX820 and ET-YFB200G. Long Reach mode is compatible up to 1080p signals. When used with other transmitter/switcher, signals can be transmitted for up to 100 m (328 ft). *7 Advanced skills are necessary to use a computer to control geometric adjustment. Consult your dealer. *8 Available for use worldwide except in the United States. Geometry Manager Pro software is required. *9 Supported cameras are Nikon D5200/D5300 or successor models. *10 Art-Net is a protocol for transmitting the lighting control protocol DMX512 over the Ethernet. *11 This product is not a medical instrument. Do not use it for actual medical diagnosis. *12 To maintain the lamp performance when installing the unit facing downward, mount the enclosed Lamp Adaptor. *13 Usable only with DVI-D primary input and HDMI secondary input, with a signal of the same format input to both. *14 This function is not effective for some source combinations.

Specifications

Model	PT-DZ780/DZ780L	PT-DW750/DW750L	PT-DX820/DX820L
Power supply	100-240 V AC, 9.0-4.0 A, 50/60 Hz		
Power consumption	1790 W (810 VA at 240 V AC) (0.3 W when STANDBY MODE set to ECO*1, 3 W when STANDBY MODE set to NORMAL)		
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-DZ780/DW750/DX820 PT-DZ780L/DW750L/DX820L	Powered zoom (throw ratio 1.7-2.4:1), powered focus F 1.7-1.9, f 25.6-35.7 mm Optional powered zoom/focus lenses and fixed-focus lens	Powered zoom (throw ratio 1.8-2.5:1), powered focus F 1.7-1.9, f 25.6-35.7 mm
Lamp	310 W UHM lamp × 2, replacement cycle of up to 4,000 hours*2		
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 (100-350 in) with the ET-DLE030, 16:10 aspect ratio		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 (100-350 in) with the ET-DLE030, 4:3 aspect ratio
Brightness*3	7,000 lm (dual-lamp, LAMP POWER: NORMAL)		8,200 lm (dual-lamp, LAMP MODE: NORMAL)
Center-to-corner uniformity*3	90 %		
Contrast*3	3,000:1 (full on/full off)		
Resolution	1,920 × 1,200 pixels	1,280 × 800 pixels (Input signals that exceed this resolution will be converted to 1,280 × 800 pixels.)	1,024 × 768 pixels (Input signals that exceed this resolution will be converted to 1,024 × 768 pixels.)
Optical axis shift*4	Vertical +50%*6, -16%; horizontal +30%*5, -10%, powered	Vertical +60%, -16%; horizontal +30%*5, -10%, powered	Vertical +50%*6, -13%; horizontal +30%*5, -10%, powered
Keystone correction range	Vertical ±40°*7, horizontal ±15°*8		
Keystone correction range with the optional upgrade kit ET-UK20	Vertical ±45°*9*11, horizontal ±40°*10*11		
Installation	Ceiling/floor, front/rear		
Terminals	SDI IN 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 USB	BNC × 1 (3G/HD/SD-SDI) HDMI 19-pin × 1 (Deep Color, compatible with HDCP) DVI-D 24-pin × 1 (DVI 1.0 compliant, compatible with HDCP, compatible with single link only) BNC × 5 (RGB/YPbPr/YCa/Cr/Video × 1) D-Sub HD 15-pin (female) × 1 (RGB/YPbPr/YCa/Cr × 1) D-sub 9-pin (female) × 1 for external control (RS-232C compliant) D-sub 9-pin (male) × 1 for link control M3 × 1 for wired remote control M3 × 1 for link control (for wired remote control) D-sub 9-pin (female) × 1 for external control (parallel) RJ-45 × 1 (for network and DIGITAL LINK (video/network/serial control) connection, 100Base-TX, compatible with Art-Net, compliant with PLink™, Deep Color, compatible with HDCP) DC out (5 V / 0.9 A)	-
Cabinet materials	Molded plastic		
Dimensions (W × H × D)	PT-DZ780/DW750/DX820 PT-DZ780L/DW750L/DX820L	498 × 175*12 × 521 mm (19-19/32 × 6-7/8*11 × 20-1/2 in)(with supplied lens) 498 × 175*12 × 508 mm (19-19/32 × 6-7/8*11 × 20 in) (without lens)	
Weight*13	PT-DZ780/DW750/DX820 PT-DZ780L/DW750L/DX820L	Approximately 17.8 kg (39.2 lbs) (with supplied lens) Approximately 17.0 kg (37.5 lbs) (without lens)	
Operation noise*3	30 dB (LAMP POWER: NORMAL), 28 dB (LAMP POWER: ECO)		
Operating environment	Operating temperature: 0-45 °C (32-113 °F)*14, operating humidity: 10%-80% (no condensation)		
Supplied accessories	Power cord with secure lock, wireless/wired remote control unit, batteries (R03/AAA type × 2), claps (× 2), software CD-ROM (Logo Transfer Software, Multi Projector Monitoring & Control Software)		

*1 When the STANDBY 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.
*2 When the LAMP MODE is set to NORMAL. The usage environment affects the lamp replacement cycle. *3 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. *4 Optical axis shift is fixed with the ET-DLE030 and cannot be operated with the ET-DLE055. *5 +28% with the ET-DLE085. *6 +45% with the ET-DLE085. *7 ±22° with the ET-DLE085/DLE055 and +5° with the ET-DLE030. *8 Not operable with the ET-DLE030. *9 ±40° with the ET-DLE150/DLE250/supplied lens and ±22° with the ET-DLE085/DLE055. *10 ±15° with the ET-DLE085/DLE055. *11 Up to a total of ±55° during simultaneous horizontal and vertical correction. *12 With lens at shortest position. *13 Average value. May differ depending on models.
*14 The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F) when the FAN control is set to HIGH ALTITUDE (for altitudes from 1,400 m to 2,700 m (4,593 ft to 8,858 ft) above sea level). Also, if the ambient temperature exceeds 40 °C (104 °F) (35 °C (95 °F) in HIGH ALTITUDE mode) when the projector is being used with LAMP SELECT set to DUAL and LAMP POWER set to NORMAL, the light output may be reduced approximately 20% to protect the projector.

Projection Distance

Diagonal image size [Throw ratio]	PT-DZ780 (16:10 aspect ratio)						PT-DW750 (16:10 aspect ratio)						PT-DX820 (4:3 aspect ratio)								
	ET-DLE085 ET-DLE080	ET-DLE150	Supplied	ET-DLE250	ET-DLE350	ET-DLE450	ET-DLE055	ET-DLE085 ET-DLE080	ET-DLE150	Supplied	ET-DLE250	ET-DLE350	ET-DLE450	ET-DLE055	ET-DLE085 ET-DLE080	ET-DLE150	Supplied	ET-DLE250	ET-DLE350	ET-DLE450	ET-DLE055
[min. max.]	[1.3-1.9] min. max.	[1.7-2.4] min. max.	[2.3-3.6] min. max.	[3.6-5.4] min. max.	[5.4-8.6] min. max.	[8.8-12.7] min. max.	[0.8-1]	[0.8-1.0] min. max.	[1.4-2.0] min. max.	[1.8-2.5] min. max.	[2.4-3.8] min. max.	[3.8-5.1] min. max.	[5.6-9.0] min. max.	[0.8-1]	[0.8-1.0] min. max.	[1.3-2.0] min. max.	[1.8-2.5] min. max.	[2.4-3.7] min. max.	[3.7-5.6] min. max.	[5.5-8.9] min. max.	[0.8-1]
1.27 50"	0.82-1.04	1.38-2.01	1.82-2.57	2.42-3.87	3.80-5.81	5.66-9.12	0.83	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	0.81-1.01	1.34-1.97	1.78-2.51	2.36-3.78	3.71-5.68	5.52-8.91	0.81
2.03 80"	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	2.8-3.6	4.7-6.9	6.3-8.9	8.3-13.3	13.1-20.1	19.5-31.5	2.9	2.6-3.3	4.4-6.5	5.8-8.2	7.7-12.4	12.2-18.6	18.1-29.2	2.7
2.54 100"	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	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	1.32-1.64	2.18-3.18	2.89-4.06	3.83-6.09	6.02-9.17	9.02-14.44	1.32
3.81 150"	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	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	4.3-5.4	7.2-10.4	9.5-13.3	12.6-20.0	19.8-30.1	29.6-47.4	4.3
5.08 200"	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	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	1.66-2.07	2.74-3.98	3.65-5.10	4.80-7.63	7.56-11.50	11.35-18.12	1.66
7.62 300"	17.0-21.1	28.0-40.4	37.0-51.9	48.9-74.4	72.1-110.7	118.3-184.5	17.0	17.9-22.2	29.4-42.5	39.9-54.4	51.4-81.3	80.9-122.5	122.2-193.9	17.9	16.6-20.8	27.3-39.5	38.2-50.6	47.9-73.6	73.3-114.0	113.7-180.3	17.9
10.16 400"	6.93-8.59	11.39-16.45	15.07-21.07	19.90-31.48	31.36-47.46	47.38-75.08	6.93	7.28-9.02	11.96-17.28	15.83-22.13	20.90-33.05	32.94-49.84	49.76-78.95	6.93	6.77-8.40	11.13-16.08	14.73-20.60	19.45-30.77	30.65-46.39	46.31-73.39	6.93
15.24 600"	22.7-29.2	37.4-54.0	49.4-69.1	65.3-103.3	102.9-157.5	155.4-246.3	22.7	23.9-29.6	39.2-56.7	51.9-72.6	88.6-108.4	108.1-163.5	228.7-298.7	22.7	22.2-27.5	36.5-52.8	48.3-67.6	63.8-100.9	100.6-152.2	151.9-240.8	22.7
15.24 600"	10.42-12.91	17.11-24.70	22.64-31.65	29.89-47.11	47.11-71.25	71.22-112.77	10.42	10.94-13.55	17.96-25.94	23.78-33.23	31.39-49.62	49.47-74.82	74.80-118.42	10.42	10.18-12.62	16.72-24.15	22.13-30.94	29.22-46.19	46.05-69.65	69.61-110.23	10.42
	37.4-42.3	56.1-81.1	74.3-103.8	98.1-155.0	154.6-233.8	233.7-370.0		35.9-44.5	58.9-85.1	78.0-109.0	103.0-162.8	162.3-245.5	245.4-388.5		33.4-41.4	54.9-79.2	72.6-101.5	95.9-151.5	151.1-228.5	228.4-361.6	

unit: meters
feet

For details on specifications and projection distances, visit our Projector Global Web Site: panasonic.net/avc/projector

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For more information about Panasonic projectors, please visit:
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YouTube – www.youtube.com/user/PanasonicProjector



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