

Panasonic

PT-TW341R Series

LCD Short Throw Projectors

PT-TW341R
PT-TW340
PT-TW250
PT-TX400
PT-TX310
PT-TX210

Easy to Use Short-Throw Projectors



Photo shows the PT-TW341R.

Space-Saving, Easy Interactivity^{*1} (PT-TW341R), Powered by a Long-Lasting Lamp

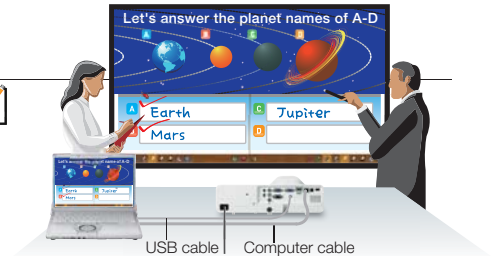
With its compact, lightweight body, the TW341R Series enables large-screen projection even in limited spaces, making it ideal for small meeting rooms and classrooms.

The PT-TW341R features interactive functions that make lectures and meetings more effective, and give presentations greater impact.

Superb Performance

Interactive Functions Let You Write on a Projected Image (PT-TW341R Only)

You can write or draw figures on the projected image with the Interactive Pen/Pointer.^{*2} The scanning camera frame rate of the PT-TW341R, which is higher compared to our previous products,^{*3} ensures smoother writing. In addition, two users can write simultaneously to make classes and presentations more effective. It is also easy to store the words and figures in a computer for information sharing.



Convenient Interactive Features

- **Auto driver installation**

No need to install a special driver from a CD-ROM.^{*4}

- **Auto calibration**

Auto calibration helps to reduce setting time. Manual calibration is also available by touching four points with the Interactive Pen/Pointer.^{*2}

- **Functionality improved**

The faster frame rate ensures smooth, comfortable writing.

- **Dual pen support^{*5}**

Selecting the dual pen mode (Half Screen mode/Full Screen mode) allows two users to write simultaneously, making your classes and presentations more efficient.

- **Half Screen mode**

The drawing screen is divided into two sections. Individually select the color and line width for each screen.



- **Full Screen mode**

Write on the full screen. The color and line width of the two pens are the same.



- **Two Interactive Pens provided**

Lightly touch the screen with the pen to write.



A Full 3,500 lm of Brightness^{*6} and 10,000:1 Contrast Ratio

A remarkable 3,500 lm^{*6} of brightness and 10,000:1 contrast have been achieved in a compact, easy-to-carry body. Bright, clear images enhance the variety of viewing situations and applications.

A Maximum 8,000-Hour Lamp Replacement Cycle^{*7}

It enables operation for up to 8,000 hours without needing to be replaced. This also helps reduce maintenance and operating costs.

Quiet 28-dB^{*7} Design Helps to Hold Viewers' Attention

The noise level is as low as 28 dB.^{*7} This helps your audience to keep their attention on the discussion or on the screen images during quiet scenes.

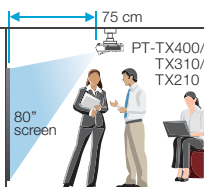
Daylight View Lite

The Daylight View Lite function can be activated from the remote control for easy and comfortable viewing during presentations and lectures in a bright room.

Ease of Installation

Wide 80-inch Screen Images with a Short Projection Distance of 75 cm^{*8}

Close range projection reduces not only the shadows of the presenter but also the glare of the projection light, making lectures and meetings more comfortable.



Curved Screen Correction^{*9}

Barrel and pincushion distortion is easily corrected when projecting onto a curved screen.

PT-TW341R/TW340/TW250: projection distance of 80 cm

Corner Keystone Correction^{*9} Enables Angled Projection

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

Multiple Unit Monitoring Capability

Multi Projector Monitoring & Control Software is available for monitoring and controlling multiple Panasonic projectors from a single PC.





Variety of Useful Features

Memory Viewer Function*10

In addition to JPEG/BMP image and text files, PDF files can also be projected by simply inserting a USB memory device containing the data into the USB memory port. Now you can start your presentation without having to connect to a computer.

USB Display Function*10 for Easy Projection Using a USB Cable

USB Display outputs images and sounds from the computer without the need to install any software. Simply connect to the USB port with a single USB cable and start your presentation.

Equipped with an HDMI Input Terminal and Abundant Interfaces

Supports a wide range of system architectures.



PT-TW340/TW250/TX400/TX310



PT-TW341R



PT-TX210

Other Useful Features

- Built-in closed caption decoder
- Start up logo
- PJLink™ compatibility **PJLink™**
- Built-in 10 W*11 speaker
- Easy lamp and filter replacement
- Projector identification system for up to 6 projectors
- Blackboard mode
- Equipped with a security bar for theft prevention

Eco-friendly

- Ecology-conscious design
- No halogenated flame retardants are used in the cabinet.
- Lead-free glass is used for the lens.
- Coating-free cabinet for easy recycling.
- Switchable lamp mode

Projection distance

unit: feet (meters)

PT-TW341R/TW340/TW250

(16:10 aspect ratio; throw ratio 0.46–0.00:1)

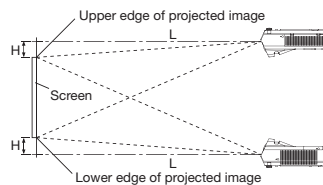
Diagonal image size	Projection distance (L)	Height from the edge of screen to center of lens (H)
50" [1.27]	1.57 [0.49]	-0.36 [-0.10]
60" [1.52]	1.94 [0.59]	-0.43 [-0.12]
70" [1.78]	2.26 [0.69]	-0.49 [-0.14]
80" [2.03]	2.62 [0.80]	-0.56 [-0.16]
90" [2.29]	2.95 [0.90]	-0.62 [-0.18]
100" [2.54]	3.28 [1.00]	-0.72 [-0.20]

PT-TX400/TX310/TX210

(4:3 aspect ratio; throw ratio 0.46–0.00:1)

Diagonal image size	Projection distance (L)	Height from the edge of screen to center of lens (H)
50" [1.27]	1.51 [0.46]	-0.13 [-0.04]
60" [1.52]	1.80 [0.55]	-0.15 [-0.05]
70" [1.78]	2.13 [0.65]	-0.18 [-0.05]
80" [2.03]	2.46 [0.75]	-0.20 [-0.06]
90" [2.29]	2.79 [0.85]	-0.23 [-0.07]
100" [2.54]	3.08 [0.94]	-0.25 [-0.08]

* Lens performance cannot be guaranteed for projection distance larger than 1.14 m.



- The value for L (distance to screen) varies slightly depending on the zoom lens characteristics.
- At the shortest projection distance, the zoom lens characteristics may cause slight image distortion.

*1 Featured on the PT-TW341R only. *2 Interactive pointer available as an option. *3 PT-TW231R Series. *4 Available for Windows® only. For a Mac OS, driver installation from the CD-ROM is necessary. *5 Available for Windows® operating system. *6 For the PT-TX400 only, 3,200 lm for the PT-TW341R, PT-TW340 and PT-TX310, and 2,800 lm for the PT-TW250 and PT-TX210. *7 When lamp mode is set to Eco 2. The usage environment affects the lamp replacement cycle. *8 Projection distance of 80 cm for the PT-TW341R/TW340/TW250. *9 Only vertical keystone correction for the PT-TX210. *10 Excluding the PT-TX210. *11 2 W speaker for the PT-TX210.



Photo shows the PT-TW341R.

Built-in camera



Photo shows the PT-TW340. The PT-TW340/TW250/TX400/TX310/TX210 does not have a built-in camera.








PT-TW341R	PT-TW340	PT-TW250	PT-TX400	PT-TX310	PT-TX210
WXGA	WXGA	WXGA	XGA	XGA	XGA
3,200 lm	3,200 lm	2,800 lm	3,500 lm	3,200 lm	2,800 lm

Note: A built-in camera is featured on the PT-TW341R only.

Specifications

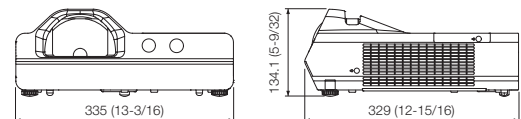
Model	PT-TW341R	PT-TW340	PT-TW250	PT-TX400	PT-TX310	PT-TX210
Power supply	AC100-240 V 50 Hz/60 Hz					
Power consumption	300 W (6 W with Standby mode set to Normal, 0.5 W with Standby mode set to Eco*)					
LCD panel	Transparent LCD panel (× 3, R/G/B)					
	Drive method: Active matrix method					
	Panel size: 15.0 mm (0.59 inches) diagonal (16:10 aspect ratio)			16.0 mm (0.63 inches) diagonal (4:3 aspect ratio)		
	Pixels: 1,024,000 (1,280 × 800)			786,432 (1,024 × 768)		
Lens	Fixed zoom, Manual focus lens, F = 1.8, f = 6.08 mm, Throw Ratio: 0.46:1					
Screen size	1.27–2.54 m (50–100 inches) diagonally, 16:10 aspect ratio			1.27–2.54 m (50–100 inches) diagonally, 4:3 aspect ratio		
Resolution	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.)		
Brightness* (Lamp power: Normal)	3,200 lm		2,800 lm		3,200 lm, 2,800 lm	
Lamp	230 W × 1 lamp					
	Lamp replacement cycle: Normal: 5000 h/Eco1: 6000 h/Eco2: 8000 h**					
Center-to-corner uniformity*	80 %					
Contrast*	10,000:1 (all white/all black) (RGB signal input, Color mode: Dynamic, Lamp power: Normal)					
Scanning frequency	HDMI IN: fr: 15–91 kHz, fr: 24–85 Hz, dot clock: 162 MHz or lower					
	RGB: fr: 15–91 kHz, fr: 24–85 Hz, dot clock: 162 MHz or lower					
	YPbPr (Y/Ca/Cb): fr: 15.73 kHz, fr: 59.94 Hz [525i (480i)], fr: 15.63 kHz, fr: 50 Hz [625i (576i)], fr: 31.47 kHz, fr: 59.94 Hz [525p (480p)], fr: 31.25 kHz, fr: 50 Hz [625p (576p)], fr: 45.00 kHz, fr: 60 Hz [750p (720/60p)], fr: 37.50 kHz, fr: 50 Hz [750p (720/50p)], fr: 33.75 kHz, fr: 60 Hz [1125 (1080/60)], fr: 28.13 kHz, fr: 50 Hz [1125 (1080/50)], fr: 28.13 kHz, fr: 25 Hz [1125 (1080/25p)], fr: 27.00 kHz, fr: 24 Hz [1125 (1080/24p)], fr: 27.00 kHz, fr: 48 Hz [1125 (1080/24sf)], fr: 33.75 kHz, fr: 30 Hz [1125 (1080/30p)], fr: 67.50 kHz, fr: 60 Hz [1125 (1080/60p)], fr: 56.25 kHz, fr: 50 Hz [1125 (1080/50p)]					
Video/S-Video: fr: 15.73 kHz, fr: 59.94 Hz [NTSC/NTSC4.43/PAL-M/PAL60], fr: 15.63 kHz, fr: 50 Hz [PAL/SECAM/PAL-N]						
Keystone correction range	Vertical: ±15° (Auto, Manual)					
	Horizontal: ±15° (Manual)					
Installation	Ceiling/floor, front/rear					
Terminals	HDMI IN: HDMI 19P × 1 (HDCP compatible, Deep Color compatible [480i], [576i], [480p], [576p], [720/60p], [720/50p], [1080/60i], [1080/50i], [1080/60p], [1080/50p], [1080/24p], [1080/25p], [1080/24sf], [1080/30p]) VESA size (640 dots × 480 dots)–WUXGA (1,920 dots × 1,200 dots), VESA CVT-RB compatible, Audio signal: linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)					
	COMPUTER 1 IN: D-sub HD 15-pin (female) × 1 [RGB/S-Video/Y-Pb(Ca)-Pr(Cb)/Scart RGB]					
	COMPUTER 2 IN/OUT: D-sub HD 15-pin (female) × 1 [RGB/Monitor output] (input/output switching) [Monitor output]					
	VIDEO IN: Pin jack × 1					
	AUDIO IN 1: M3 (L,R) × 1					
	AUDIO IN 2: Pin jack × 2 (L,R)					
	AUDIO OUT: M3 (L,R) × 1 (variable)					
	LAN: RJ-45 (× 1), for network connections, 10Base-T/100Base-TX, PLink™ (class 1) compatible					
	SERIAL IN: D-Sub 9P (female) × 1, for external control (RS-232C compatible)					
	USB-Type A: 1 (Memory Viewer, DC 5 V, max. 500 mA)					
	USB-Type B: 1 (USB Display) 1 (Service man only)					
Mini USB: 1 (for interactive function) —						
Built-in speaker	10 W (monaural)					
Operation noise*	Normal: 37 dB, Eco1: 33 dB, Eco2: 28 dB					
Cabinet materials	Molded plastic (PC)					
Dimensions (W × H × D)	335 mm × 134.1 mm (with legs at shortest position) × 329 mm					
Weight*	Approx. 3.8 kg (8.4 lbs)					
Operating environment	Operating environment temperature: Normal use: 5 °C–40 °C (41 °F–104 °F) [at altitudes less than 1,400 m (4,593 ft)] 5 °C–35 °C (41 °F–95 °F) [at altitudes of 1,400–2,700 m (4,593–8,858 ft)] Operating environment humidity: 20–80 % (no condensation)					
Supplied accessories	<ul style="list-style-type: none"> Wireless remote control unit × 1 Power cord × 1 (× 2 for A model only) Instruction manual (Basic guide) Batteries for remote control (R03/LR03/AAA type (× 2)) Computer cable (1.5 m) × 1 Interactive pens (× 2) Batteries for pen (R03/LR03/AAA type (× 4)) USB cable (4.5 m) CD-ROM (× 1) --- Instruction manual, Multi Projector Monitoring & Control Software** 					
Optional accessories	Ceiling mount bracket: Projector mount bracket: ET-PKL430B, Ceiling mount bracket (for high ceilings): ET-PKL100H, Ceiling mount bracket (for low ceilings): ET-PKL100S					
	Replacement lamp unit: ET-LAL500					
	Replacement filter unit: ET-RFL300					
	Interactive pen: ET-PEN100 —					
	Interactive pointer: ET-PNT100 —					
	Conversion cable: D-SUB/S-Video conversion cable: ET-ADSV					

Optional accessories

<p>Ceiling mount bracket for high ceilings*4 ET-PKL100H</p> 	<p>Ceiling mount bracket for low ceilings*4 ET-PKL100S</p> 	<p>Projector mount bracket ET-PKL430B</p> 	<p>Replacement filter ET-RFL300</p>  <p>* The filter cover shown in the photo is not included.</p>
<p>Replacement lamp unit ET-LAL500</p> 	<p>Interactive pen*5 ET-PEN100 *Exclusively for PT-TW341R</p> 	<p>Interactive pointer ET-PNT100 *Exclusively for PT-TW341R</p> 	

Dimensions

unit: mm (inches)



* Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*1 When the Standby mode is set to Eco, network functions such as power on over the LAN network will not operate. Also, only certain commands can be received for external control using the serial terminal. *2 The value for the recommended lamp replacement cycle is the maximum value, at which luminance will become 50 %. The usage environment affects the lamp replacement cycle. *3 Not supported with the PT-TX210. *4 This product is used together with an optional bracket attachment (sold separately). *5 The Interactive Pen is the same as those which are supplied with PT-TW341R.

Caution

Do not install the projector in locations that are subject to excessive water, humidity, steam or oily smoke. Doing so may result in fire, malfunction or electric shock.

NOTES ON USE

- The projector uses a high-voltage mercury lamp under high internal pressure. This lamp may break, emitting a popping sound, or fail to illuminate, due to impact or extended use.
- The high-wattage lamp becomes very hot during operation. Please observe the following precautions:
 - Never place objects on top of the projector while it is in operation.
 - Make sure there is an unobstructed space of 1000 mm (3 ft 3 in) or more around the projector's exhaust openings.
 - If stacking projector units, care must be taken to provide the recommended space between units. These space requirements also apply to installation where only one projector unit is operating at one time and the other unit is used as a backup.

- If the projector is placed in a box or enclosure, the temperature of the air surrounding the projector must match the operating temperature listed in the specifications table during use. Also, make sure the projector's intake and exhaust openings are not blocked. Ensure there is sufficient ventilation to prevent hot air from the exhaust openings being recirculated into the intake opening.
- The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
 - The lamp replacement cycle varies greatly depending on individual lamp characteristics and usage conditions.
 - The brightness of the lamp will gradually decrease with use.
- Due to natural characteristics of lamps, screen brightness may fluctuate. This is not an indication of faulty lamp performance.

Panasonic®



For more information about Panasonic projectors, please visit:
 Projector Global Web Site – panasonic.net/avc/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. The projection distances and throw ratios given in this brochure are for use only as guidelines. For more detailed information, please consult the dealer from whom you are purchasing the product. The PLink trademark is an application trademark in Japan, the United States, and other countries and regions or registered trademarks. Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. HDMI, the HDMI logo and High-Definition Multimedia Interface is a trademark or registered trademark of HDMI Licensing LLC. All other trademarks are the property of their respective trademark owners. Projection images simulated.

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