Panasonic



PT-**TW341R**

PT TW340

PT-**TX400**

PT-**TX310**

PT-**TX210**

Easy to Use Short-Throw Projectors



Space-Saving, Easy Interactivity (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.

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.

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

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



Full Screen mode The color and line width of the two pens are the



Two Interactive Pens provided

Lightly touch the screen with the pen to write

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.



Corner Keystone Correction[⋆] 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

- · 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

Eco-friendly

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)

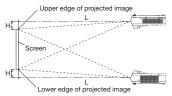
	50" [1.27]	1.57 [0.49]	-0.36 [-0.10]			
	60" [1.52]	1.94 [0.59]	-0.43 [-0.12]			
	70" [1.78]	2.26 [0.69]	-0.49 [-0.14]			
	80" [2.03]	2.62 [0.80]	-0.56 [-0.16]			
	90" [2.29]	2.95 [0.90]	-0.62 [-0.18]			
	100" [2.54]	3.28 [1.00]	-0.72 [-0.20]			
* Lens performance cannot be guaranteed for proi						

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]

tion 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 Im 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.



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



Nodel		PT-TW341R	PT- TW340	PT- TW250	PT- TX400	PT- TX310	PT- TX210	
ower supply		AC100-240 V 50 Hz/60 H		F 1-1 W 230	F F X400	FILINGIO	F F TAZIU	
ower supply ower consumption	1		node set to Normal, 0.5 W with Sta	andhy mode set to Eco*1)				
CD panel	Display method	Transparent LCD panel (x 3		and of the Loc y				
ob panoi	Drive method	Active matrix method	5,10005					
	Panel size		nonal (16:10 aspect ratio)		16.0 mm (0.63 inches) d	ianonal (4:3 aspect ratio)		
	Pixels	1,024,000 (1,280 × 800)	15.0 mm (0.59 inches) diagonal (16:10 aspect ratio)			16.0 mm (0.63 inches) diagonal (4:3 aspect ratio) 786,432 (1,024 × 768)		
ens	1 IACIO		lene E = 1.9 f = 6.09 mm Throw	Patio: 0.46:1	700,402 (1,024 × 700)			
		Fixed zoom, Manual focus lens, F = 1.8, f = 6.08 mm, Throw Ratio: 0.46:1 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						
Screen size Resolution							will be converted to 1 024 - 769 p	
	anner Nerroll	3,200 km	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 w				2,800 lm	
rightness* (Lamp	power: Norman)	230 W × 1 lamp		2,800 lm	3,500 lm	3,200 lm	2,000 IIII	
amp	Lama sanlasament suela		0 h/F==0: 0000 h*2					
	Lamp replacement cycle		Normal: 5000 h/Eco1: 6000 h/Eco2: 8000 h*2					
enter-to-corner ui	nitormity-	80 %						
ontrast*		10,000:1 (all white/all black) (RGB signal input, Color mode: Dynamic, Lamp power: Normal) fix: 15–91 kHz, fiv: 24–85 Hz, dot clock: 162 MHz or lower						
canning equency	HDMI IN		,					
oquency	RGB		tz, dot clock: 162 MHz or lower					
	YPBPR (YCBCR)	fH: 15.73 kHz, fv: 59.94 Hz [fH: 45.00 kHz, fv: 60 Hz [750 fH: 28.13 kHz, fv: 25 Hz [112 fH: 67.50 kHz, fv: 60 Hz [112	p (720)/60p], fr: 37.50 kHz, fv: 5 (1080)/25p], fr: 27.00 kHz, fv:	50 Hz [625i (576i)], fh: 31.47 50 Hz [750p (720)/50p], fh: 33.75 24 Hz [1125 (1080)/24p], fh: 27.00 50 Hz [1125 (1080)/50p]	kHz, fv: 59.94 Hz [525p (480p)], kHz, fv: 60 Hz [1125 (1080)/60i], kHz, fv: 48 Hz [1125 (1080)/24sF],	fi: 31.25 kHz, fv: 50 Hz [625p (576 fi: 28.13 kHz, fv: 50 Hz [1125 (108 fi: 33.75 kHz, fv: 30 Hz [1125 (108	p)], 0)/50i], 0)/30p],	
	Video/S-Video	fr: 15.73 kHz, fv: 59.94 Hz	[NTSC/NTSC4.43/PAL-M/PAL60],	fr: 15.63 kHz, fv: 50 Hz [PAL/SECAN	1/PAL-N]			
eystone	Vertical	±15° (Auto, Manual)	,		. ,			
orrection range	Horizontal	±15° (Manual)					_	
stallation	Honzontal	Ceiling/floor, front/rear						
erminals	HDMI IN							
ommuo		HDMI 19P x 1 HDCP compatible, Deep Color compatible [4801], [576i], [480p], [576p], [720/60p], [720/50p], [1080/50i], [1080/50i], [1080/60p], [1080/50p], [1080/24p], [1080/25p], [1080/25p], [1080/24sF], [1080 VGA size (640 dots x 480 dots)-WUXGA (1,920 dots x 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 Hb 15-pin (female) × 1 [RGB/S-Video/Y-Ps(Cs)-Ps(Cs)-Ps(Cs)-RGB]						
	COMPUTER 2 IN/OUT	D-sub HD 15-pin (female) :	D-sub HD 15-pin (female) x 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	Im jour A = (Li,1) M3 (Li,N) = 1 (variable)						
	LAN	RJ-45 (x 1), for network connections, 10Base-T/100Base-TX, PJLink™ (class 1) compatible —						
	SERIAL IN	1 7	external control (RS-232C compat	, ,				
	USB-Type A	D-Sub-31 (Wester, DG S, max. 500 mA)						
	USB-Type B	1 (USB Display)	max. 300 m/y				1 (Serviceman only)	
	Mini USB	1 (for Interactive function)					1 (oct viceman only)	
uilt in anaakar	WIIII OOD	10 W (monaural)					2 W (monaural)	
Built-in speaker Operation noise*			D F2- 20 dD				2 W (IIIOIIduidi)	
		Normal: 37 dB, Eco1: 33 dB, Eco2: 28 dB						
Cabinet materials		Molded plastic (PC)						
imensions (W × H	I × U)	335 mm × 134.1 mm (with legs at shortest position) × 329 mm						
Weight*		Approx. 3.8 kg (8.4 lbs)						
perating environm	nent	Operating environment temperature: Normal use: 5 °C-40 °C (41 °F-104 °F) [at altitudes less than 1,400 m (4,593 th)] 5 °C-35 °C (41 °F-95 °F) [at altitudes 1,400-2,700 m (4,593 th)]						
		Operating environment humidity: 20–80 % (no condensation)						
Supplied accessories		Wireless remote control u	unit \times 1 • Power cord \times 1 (\times 2 fo	or A model only) • Instruction manu-	al (Basic guide) • Batteries for rer	note control (R03/LR03/AAA type (x	2)) • Computer cable (1.5 m) × 1	
		Interactive pens (x 2) Batteries for pen (RO3/LR03/AAA type (x 4 USB cable (4.5 m) CD-ROM (x 1) Instruction manual, Mutt Projector Monitorin, Control Software, Interactive function instruction manual and interactive drawing applie	4)) g &	iction manual, Multi Projector Monitor	ing & Control Software*3			
Optional	Ceiling mount bracket			(for high ceilings): ET-PKL100H, Cei	ing mount bracket (for low ceilings): ET-PKL100S		
ccessories	Replacement lamp unit	ET-LAL500	1-1 NESOUD, CEINING INDUNE DIRCKEL	(101 mgn cellings). E1-FRE100H, Cel	ing mount bracket (for low cellings	J. ET-I NETUUO		
	Replacement lamp unit Replacement filter unit							
	nepiacement inter unit	ET-RFL300						
	Interactive per	ET DENILOO						
	Interactive pen Interactive pointer	ET-PEN100 ET-PNT100	_					

Optional accessories

Ceiling mount bracket for high ceilings*4 ET-**PKL100H**



Ceiling mount bracket ET-PKL100S



PT-TW341R



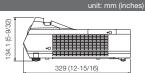
ET-PEN100

ET-RFL300 * The filter cover shown in the photo is not included. ET-PNT100 PT-TW341R

Replacement filter

Dimensions

00 335 (13-3/16)



* Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards * Measurement, measuring conditions, and method of notation all comply with \$0.2 1118 international standards.

11 When the Standby mode is set to Eco, network functions such as power on over the LAM 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

- 1. The projector uses a high-voltage mercury lamp under high internal pressure. This lamp may break, emitting a popping
- The projector use a riigh-voltage infectory lamp under night merhal 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(8 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 openings are not blocked. Ensure there is sufficient ventilation to prevent hot air from the exhaust openings being recirculated into the intake opening.

 3. 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.

 4. Due to natural characteristics of lamps, screen brightness may fluctuate. This is not an indication of faulty lamp performance.

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Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. weights and uninerships showing approximate. Specifications and appearance are subject to change will out notice. Froduct 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 PULIN trademark is an application trademark adaptant, but united States, and other countries and regions or 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



For more information about Panasonic projectors, please visit:

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All information included here is valid as of June 2014.