Panasonic

SPEC FILE

Product Number : PT-**EX520**

Product Name : LCD Projectors

LCD Projector

PT-EX520

Specifications

Main unit

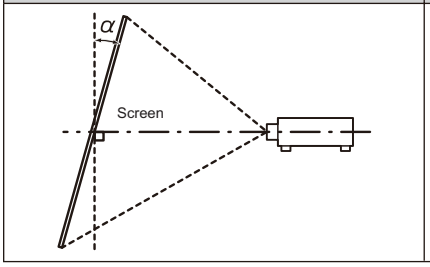
Power supply		AC100 - 240V 5.3 - 2.1A 50Hz/60Hz
Power consumption		461W
	Standby Mode (Eco)*1	0.5W, 0.3W (Taiwan)
	Standby Mode (Normal)	8W
	Standby Mode (Normal and Audio monitor out)	22W
BTU value		Max 1,573 BTU
LCDpanel	Panel size	16.0 mm (0.63 in) diagonal (4:3 aspect ratio)
	Display method	Transparent LCD panel (× 3, R/G/B)
	Drive method	Active matrix
	Pixels	786,432 (1,024 × 768) × 3, total of 2,359,296 pixels
Lens		Powered zoom (throw ratio 1.32-2.44:1), powered focus, F 1.6-2.2, f 17.1-31.7 mm
Lamp		320 W UHM lamp Lamp replacement cycle 4,000 hours (lamp power: Normal), 5,000 hours (lamp power: Eco) This is the maximum value when the lamp is turned on for 2 hours and off for 0.25 hours.
Screen size		1.02–10.16 m (40–400 inches) (4:3 aspect ratio)
Brightness*2		5,300 lumens (Lamp power: Normal, Dynamic mode, Daylight View:off, Auto Power Save:off)
Center-to-corner uniformity*2		90%
Contrast*2		2,000:1 (Lamp power: Normal, Dynamic mode, Daylight View:off, Auto Power Save:off)
Resolution		1,024 × 768 pixels
Scanning frequency	HDMI	fH: 15- 90kHz, fV: 24 - 100Hz, dot clock: 25 - 162 MHz
	RGB	fH: 15- 90kHz, fV: 24 - 100Hz, dot clock: 162 MHz or lower
	$Y P_B P_R$ ($Y C_B C_R$)	525i (480i): f_H15.73 kHz; f_V59.94 Hz, 625i (576i): f_H15.63 kHz; f_V50 Hz, 525p (480p): f_H31.47 kHz; f_V60 Hz, 625p (576p): f_H31.25 kHz; f_V50 Hz, 750 (720)/60p: f_H45.00 kHz; f_V60 Hz, 750 (720)/50p: f_H37.50 kHz; f_V50 Hz, 1125 (1080)/60i: f_H33.75 kHz; f_V60 Hz, 1125 (1080)/50i: f_H28.13 kHz; f_V50 Hz, 1125 (1080)/25p: f_H28.13 kHz; f_V25 Hz, 1125 (1080)/24p: f_H27.00 kHz; f_V24 Hz, 1125 (1080)/24sF: f_H27.00 kHz; f_V48 Hz, 1125 (1080)/30p: f_H33.75 kHz; f_V30 Hz, 1125 (1080)/60p: f_H67.50 kHz; f_V60 Hz, 1125 (1080)/50p: f_H56.25 kHz; f_V50 Hz
	Video/S-Video	f_H: 15.75 kHz, f_V: 59.94 Hz [NTSC/NTSC4.43/PAL-M/PAL60] f_H: 15.63 kHz, f_V: 50 Hz [PAL/PAL-N/SECAM]

Keystone correction range

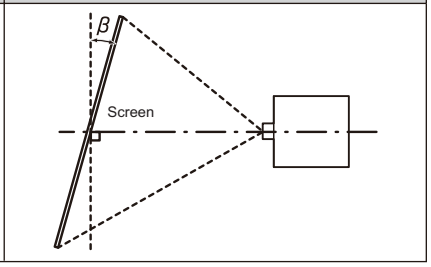
Only [KEYSTONE] used		[KEYSTONE] and [CURVED] used together				Only [CURVED] used	
Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
±35	±35	±35	±35	0.8	0.9	0.8	0.9

*** Supplied lens**

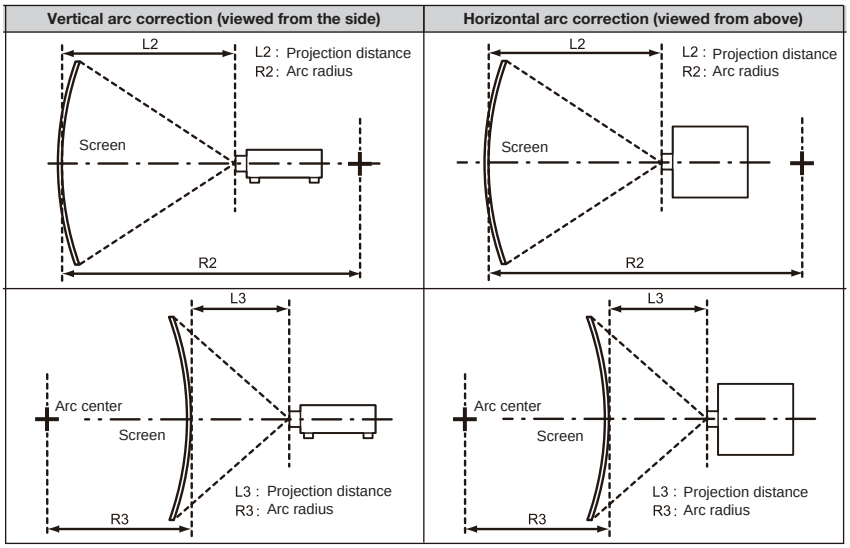
[VERTICAL KEYSTONE] (viewed from the side)



[HORIZONTAL KEYSTONE] (viewed from above)



Keystone correction range



- **When [Curved screen correction] is used, the focus of the entire screen may be lost as correction increases.**
- **Make the curved screen a circular arc shape with one part of a perfect circle removed.**

Optical axis shift		Vertical: ±50% (powered) Horizontal: ±30% (powered)	
Installation		Ceiling/floor, front/rear	
Speaker		4.0 cm (1-9/16 in) (monaural) × 1	
Terminals	HDMI IN 1/HDMI IN 2	HDMI 19-pin ×2,	Deep Color, compatible with HDCP, Audio signal: linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
	RGB 1 IN	BNC × 5	
		R,G,B:	0.7 Vp-p, 75 ohms, (G: 1.0 Vp-p, 75 ohms for sync on G) HD/VD, SYNC: TTL, high impedance, positive/negative automatic
		Y, P_B, P_R (Y, C_B, C_R)	Y: 1.0 Vp-p (including sync signal), P_BP_R(C_BC_R): 0.7 Vp-p, 75 ohms
		Y/C	Y: 1.0 Vp-p (including sync signal), C: 0.286 Vp-p, 75 ohms
	RGB 2 IN	D-sub HD 15-pin (female) × 1	
		R,G,B:	0.7 Vp-p, 75 ohms, (G: 1.0 Vp-p, 75 ohms for sync on G) HD/VD, SYNC: TTL, high impedance, positive/negative automatic
		NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.	
		Y, P_B, P_R (Y, C_B, C_R)	Y: 1.0 Vp-p (including sync signal), P_BP_R(C_BC_R): 0.7 Vp-p, 75 ohms
	VIDEO IN	Pin jack × 1, 1.0 Vp-p, 75 ohms	
	MONITOR OUT	D-sub HD 15-pin (female) × 1	
		R,G,B:	0.7 Vp-p, 75 ohms, (G: 1.0 Vp-p, 75 ohms for sync on G) HD/VD, SYNC: TTL, high impedance, positive/negative automatic
		Y, P_B, P_R	Y: 1.0 Vp-p (including sync signal), P_BP_R: 0.7 Vp-p, 75 ohms
	AUDIO IN 1/AUDIO IN 2	M3 × 2, 0.5 Vrms, input impedance: 22 kilohms or more	
	AUDIO IN 3	Pin jack(L, R) × 1, 0.5 Vrms, input impedance: 22 kilohms or more	
	VARIABLE AUDIO OUT	M3 × 1 (monitor out, stereo) 0–2.0 Vrms, variable, output impedance: 2.2 kilohms or less	
	SERIAL IN	D-sub 9 p × 1, for external control (RS-232C compliant)	
	REMOTE 1 IN	D-sub 9-pin (female) ×1, for external control (parallel)	
	REMOTE 2 IN	M3 jack × 1 for wired remote control	
	LAN	RJ-45 x 1 for network connection 10Base-T/100Base-TX, compatible with Art-Net, PJLink™(Class 1)	
	WIRELESS	USB Type A × 1, for wireless projection with optional dongle (ET-WML100)	
	DC OUT	USB Type A × 1, for power supply (DC5 V, max 900 mA)	

Power cord length		3.0 m (9 ft10 in)
Cabinet materials		Molded plastic
Dimensions (W × H × D)		498 x 145*3 x 398.3mm (19-19/32 x 5-11/16*3 x 15-11/16 in) with supplied lens
Weight*4		Approx. 8.4kg (18.5lbs)
Operation noise		29 dB (Silent), 35 dB (Normal/Eco)
Operating environment	Operating temperature	0–45 °C (32–113 °F)*5
	Operating humidity	20%–80% (no condensation)

Remote control unit

Power supply	3 V DC (R03/LR03/AAAtypebattery × 2)
Operation range*6	Approx. 30 m (98 ft5 in) when operated from directly in front of the signal receptor
Dimensions (W × H × D)	48 × 145 × 27 mm (1-7/8 × 5-23/32 × 1-1/16inches)
Weight	Approx. 102 g (3.6 oz) (including batteries)

Supplied accessories

Power cord (including power cord holder)(× 1)
Wireless/wireled remote control unit (× 1)
Batteries for remote control (AAA/R03/LR03 type× 2)
Software CD-ROM (Logo Transfer Software, Multi Projector Monitoring & Control Software) (× 1)
Lens cap (× 1)

Optional accessories

Zoom lens	ET-ELT30, ET-ELT31, ET-ELW30, ET-ELW31
Ceiling mount bracket	ET-PKD120H (for high ceilings) ET-PKD120S (for low ceilings)
Bracket assembly	ET-PKE300B (for ET-PKD120H/PKD120S)
Replacement lamp unit	ET-LAEF100
Replacement filter unit	ET-RFE300
Early Warning Software	ET-SWA100series
Digital Interface Box	ET-YFB100G
DIGITAL LINK Switcher	ET-YFB200G
Wireless module	ET-WML100

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice.

***1 When the standby mode is set to eco, network functions such as power on over the LAN network will not operate, and the serial output terminal cannot be used. Also, only certain commands can be received for external control using the serial terminal. Only Taiwan model, 0.15 W.**

***2 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118:2012 international standards.**

***3 With legs at shortest position.**

***4 Average value. May differ depending on models.**

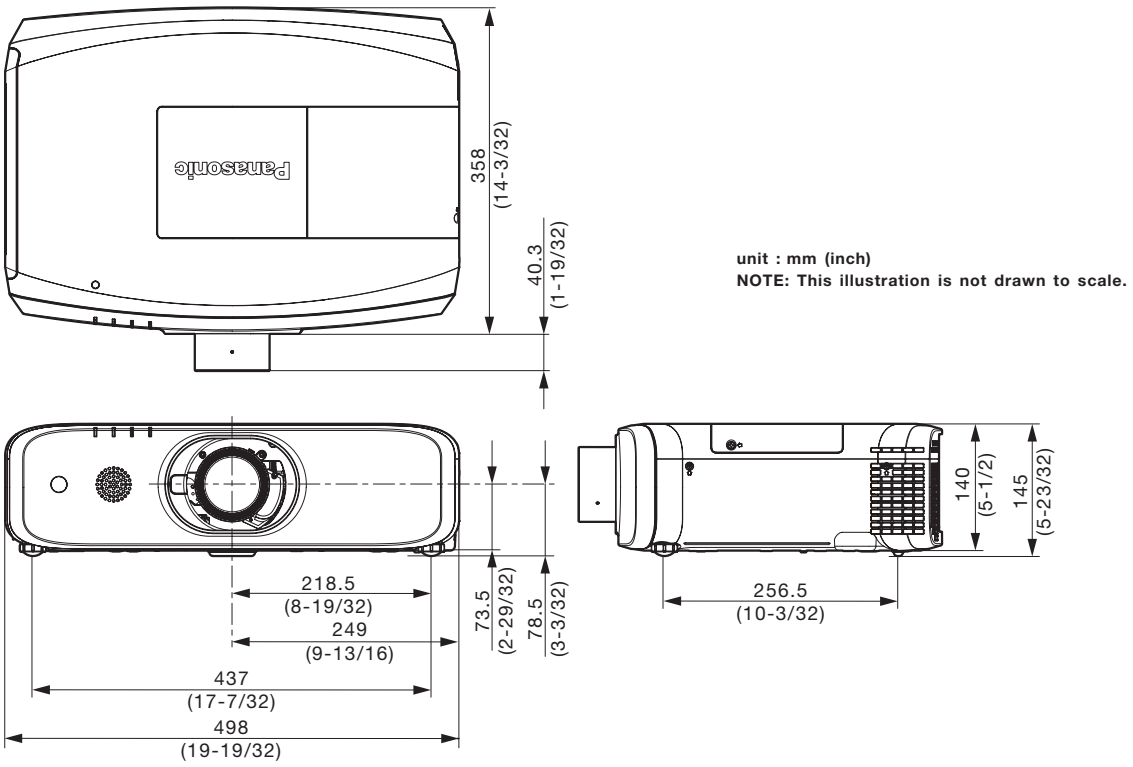
***5 The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F) when used at altitudes between 1,400 m and 2,700 m (4,593 ft to 8,858 ft) above sea level. When operating temperature exceeds 40 °C (35 °C at high altitude), lamp power may automatically switch to ECO in order to protect the projector.**

***6 Operation range differs depending on environments.**

LCD Projector

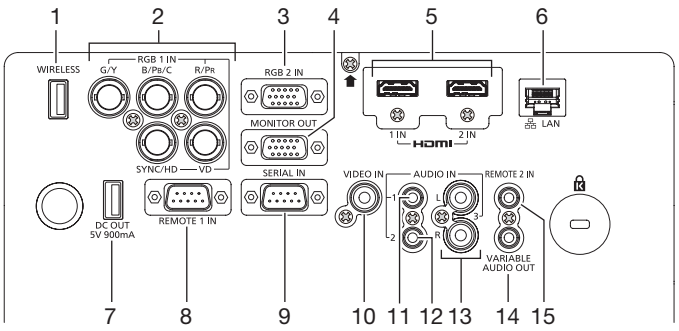
PT-**EX520**

Dimensions



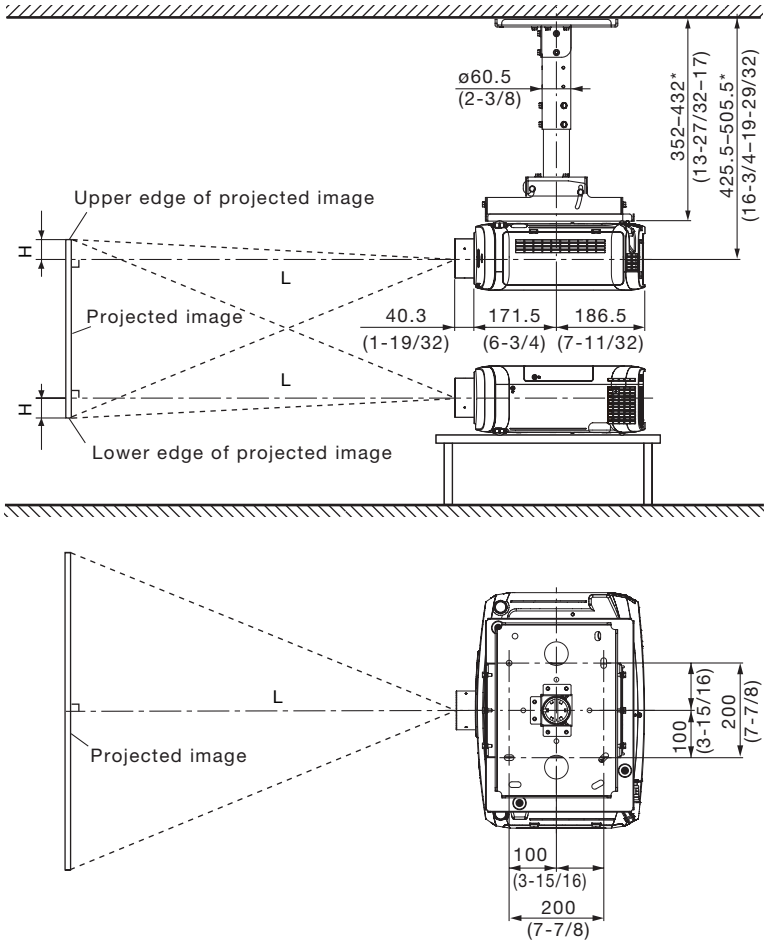
unit : mm (inch)
NOTE: This illustration is not drawn to scale.

Terminals



1 WIRELESS connector
2 RGB1 input
3 RGB2 input
4 MONITOR output
5 HDMI input
6 LAN connector
7 DC output
8 Remote 1 input
9 Serial input
10 Video input
11 Audio 1 input
12 Audio 2 input
13 Audio 3 input
14 Variable Audio output
15 Remote 2 input

Standard setting-up position



Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120H and bracket assembly ET-PKE300B.

***Adjustable in 40 mm (1-9/16 in) steps.**

NOTE
Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120H and bracket assembly ET-PKE300B.

unit : mm (inch)

This illustration is not drawn to scale.

Caution:
- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. To prevent the projector from swaying or dropping, attach the wire between the mounting bracket and the ceiling.

Projection distance for 4:3 aspect ratio screen

Unit: meters

Screen size (diagonal)		Distance to screen (L)										Height from the edge of screen to center of lens (H)
		Supplied lens		Optional lens								
				ET-ELW31		ET-ELW30		ET-ELT30		ET-ELT31		
[m]	[in]	min.	max.	min.	max.	min.	max.	min.	max	min.	max.	
1.02 /	40	1.05	1.98	0.63	0.90	0.80	1.05	1.90	3.51	3.60	6.46	0.00 – 0.61
1.27 /	50	1.32	2.47	0.79	1.11	1.00	1.31	2.39	4.39	4.45	8.03	0.00 – 0.76
1.52 /	60	1.58	2.96	0.95	1.32	1.20	1.58	2.88	5.28	5.31	9.59	0.00 – 0.91
1.78 /	70	1.86	3.47	1.12	1.54	1.41	1.85	3.39	6.20	6.20	11.21	0.00 – 1.07
2.03 /	80	2.12	3.97	1.29	1.75	1.62	2.12	3.89	7.09	7.06	12.77	0.00 – 1.22
2.29 /	90	2.40	4.48	1.45	1.97	1.83	2.39	4.40	8.01	7.95	14.40	0.00 – 1.37
2.54 /	100	2.67	4.97	1.62	2.18	2.03	2.66	4.89	8.89	8.80	15.96	0.00 – 1.52
3.05 /	120	3.21	5.98	1.95	2.61	2.45	3.20	5.90	10.70	10.55	19.14	0.00 – 1.83
3.81 /	150	4.02	7.47	2.44	3.26	3.06	4.00	7.39	13.40	13.16	23.89	0.00 – 2.29
5.08 /	200	5.37	9.98	3.27	4.33	4.10	5.35	9.90	17.90	17.51	31.82	0.00 – 3.05
6.35 /	250	6.72	12.48	4.09	5.40	5.13	6.69	12.40	22.40	21.86	39.75	0.00 – 3.81
7.62 /	300	8.07	14.98	4.91	6.48	6.16	8.04	14.90	26.91	26.21	47.68	0.00 – 4.57
8.89 /	350	9.42	17.49	5.74	7.55	7.19	9.38	17.41	31.41	30.56	55.61	0.00 – 5.33
10.16 /	400	10.77	19.99	6.56	8.62	8.22	10.73	19.91	35.91	34.91	63.55	0.00 – 6.10

Unit: feet

Screen size (diagonal)		Distance to screen (L)										Height from the edge of screen to center of lens (H)
		Supplied lens		Optional lens								
				ET-ELW31		ET-ELW30		ET-ELT30		ET-ELT31		
[m]	[in]	min.	max.	min.	max.	min.	max.	min.	max	min.	max.	
1.02 /	40	3.4	6.5	2.1	3.0	2.6	3.4	6.2	11.5	11.8	21.2	0.0 – 2.0
1.27 /	50	4.3	8.1	2.6	3.6	3.3	4.3	7.8	14.4	14.6	26.3	0.0 – 2.5
1.52 /	60	5.2	9.7	3.1	4.3	3.9	5.2	9.4	17.3	17.4	31.5	0.0 – 3.0
1.78 /	70	6.1	11.4	3.7	5.1	4.6	6.1	11.1	20.3	20.3	36.8	0.0 – 3.5
2.03 /	80	7.0	13.0	4.2	5.7	5.3	7.0	12.8	23.3	23.2	41.9	0.0 – 4.0
2.29 /	90	7.9	14.7	4.8	6.5	6.0	7.8	14.4	26.3	26.1	47.2	0.0 – 4.5
2.54 /	100	8.8	16.3	5.3	7.2	6.7	8.7	16.0	29.2	28.9	52.4	0.0 – 5.0
3.05 /	120	10.5	19.6	6.4	8.6	8.0	10.5	19.4	35.1	34.6	62.8	0.0 – 6.0
3.81 /	150	13.2	24.5	8.0	10.7	10.0	13.1	24.2	44.0	43.2	78.4	0.0 – 7.5
5.08 /	200	17.6	32.7	10.7	14.2	13.5	17.6	32.5	58.7	57.4	104.4	0.0 –10.0
6.35 /	250	22.0	40.9	13.4	17.7	16.8	21.9	40.7	73.5	71.7	130.4	0.0 –12.5
7.62 /	300	26.5	49.1	16.1	21.3	20.2	26.4	48.9	88.3	86.0	156.4	0.0 –15.0
8.89 /	350	30.9	57.4	18.8	24.8	23.6	30.8	57.1	103.1	100.3	182.4	0.0 –17.5
10.16 /	400	35.3	65.6	21.5	28.3	27.0	35.2	65.3	117.8	114.5	208.5	0.0 –20.0

- **The value for L (distance to screen) varies slightly within ±5% depending on the zoom lens characteristics.**
- **The zoom lens characteristics may cause slight image distortion.**
- **When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.**

Projection distance for 16:9 aspect ratio screen

Unit: meters

Screen size (diagonal)		Distance to screen (L)										Height from the edge of screen to center of lens (H)
		Supplied lens		Optional lens								
				ET-ELW31		ET-ELW30		ET-ELT30		ET-ELT31		
[m]	[in]	min.	max.	min.	max.	min.	max.	min.	max	min.	max.	
1.02	40	1.15	2.16	0.69	0.97	0.87	1.14	2.08	3.83	3.91	7.03	-0.08 – 0.58
1.27	50	1.44	2.69	0.87	1.20	1.09	1.43	2.61	4.79	4.84	8.74	-0.10 – 0.73
1.52	60	1.73	3.23	1.04	1.43	1.31	1.72	3.15	5.76	5.77	10.44	-0.12 – 0.87
1.78	70	2.03	3.79	1.23	1.67	1.54	2.02	3.71	6.76	6.75	12.21	-0.15 – 1.02
2.03	80	2.32	4.32	1.40	1.90	1.76	2.31	4.25	7.73	7.68	13.91	-0.17 – 1.16
2.29	90	2.62	4.88	1.59	2.14	1.99	2.61	4.80	8.73	8.65	15.68	-0.19 – 1.31
2.54	100	2.91	5.42	1.76	2.37	2.22	2.90	5.34	9.70	9.58	17.38	-0.21 – 1.45
3.05	120	3.50	6.51	2.12	2.84	2.67	3.48	6.44	11.67	11.49	20.85	-0.25 – 1.74
3.81	150	4.38	8.15	2.66	3.54	3.34	4.36	8.07	14.61	14.32	26.02	-0.31 – 2.18
5.08	200	5.85	10.87	3.56	4.71	4.47	5.83	10.79	19.51	19.06	34.66	-0.42 – 2.90
6.35	250	7.32	13.60	4.46	5.88	5.59	7.29	13.52	24.42	23.81	43.30	-0.52 – 3.63
7.62	300	8.79	16.33	5.36	7.05	6.71	8.76	16.25	29.32	28.55	51.94	-0.62 – 4.36
8.89	350	10.26	19.05	6.26	8.22	7.84	10.22	18.97	34.23	33.29	60.58	-0.73 – 5.08
10.16	400	11.73	21.78	7.15	9.39	8.96	11.69	21.70	39.13	38.03	69.22	-0.83 – 5.81

Unit: feet

Screen size (diagonal)		Distance to screen (L)										Height from the edge of screen to center of lens (H)
		Supplied lens		Optional lens								
				ET-ELW31		ET-ELW30		ET-ELT30		ET-ELT31		
[m]	[in]	min.	max.	min.	max.	min.	max.	min.	max	min.	max.	
1.02	40	3.8	7.1	2.3	3.2	2.9	3.7	6.8	12.6	12.8	23.1	-0.3 – 1.9
1.27	50	4.7	8.8	2.9	3.9	3.6	4.7	8.6	15.7	15.9	28.7	-0.3 – 2.4
1.52	60	5.7	10.6	3.4	4.7	4.3	5.6	10.3	18.9	18.9	34.3	-0.4 – 2.9
1.78	70	6.7	12.4	4.0	5.5	5.1	6.6	12.2	22.2	22.1	40.1	-0.5 – 3.3
2.03	80	7.6	14.2	4.6	6.2	5.8	7.6	13.9	25.4	25.2	45.6	-0.6 – 3.8
2.29	90	8.6	16.0	5.2	7.0	6.5	8.6	15.7	28.6	28.4	51.4	-0.6 – 4.3
2.54	100	9.5	17.8	5.8	7.8	7.3	9.5	17.5	31.8	31.4	57.0	-0.7 – 4.8
3.05	120	11.5	21.4	7.0	9.3	8.8	11.4	21.1	38.3	37.7	68.4	-0.8 – 5.7
3.81	150	14.4	26.7	8.7	11.6	11.0	14.3	26.5	47.9	47.0	85.4	-1.0 – 7.2
5.08	200	19.2	35.7	11.7	15.5	14.7	19.1	35.4	64.0	62.5	113.7	-1.4 – 9.5
6.35	250	24.0	44.6	14.6	19.3	18.3	23.9	44.4	80.1	78.1	142.1	-1.7 –11.9
7.62	300	28.8	53.6	17.6	23.1	22.0	28.7	53.3	96.2	93.7	170.4	-2.0 –14.3
8.89	350	33.7	62.5	20.5	27.0	25.7	33.5	62.2	112.3	109.2	198.8	-2.4 –16.7
10.16	400	38.5	71.5	23.5	30.8	29.4	38.4	71.2	128.4	124.8	227.1	-2.7 –19.1

- **The value for L (distance to screen) varies slightly within ±5% depending on the zoom lens characteristics.**
- **The zoom lens characteristics may cause slight image distortion.**
- **When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.**

Calculation of the projection distance

For a screen size different from the above, use the equation below to calculate the projection distance.

Aspect ratio 4:3

Supplied lens	*minimum*	***L (m) = (diagonal screen size in inches) × 0.0270 –0.0332***
	maximum	***L (m) = (diagonal screen size in inches) × 0.0501 –0.0334***
ET-ELW31	minimum	L (m) = (diagonal screen size in inches) × 0.0165 –0.0330
	maximum	L (m) = (diagonal screen size in inches) × 0.0215 +0.0350
ET-ELW30	minimum	L (m) = (diagonal screen size in inches) × 0.0206 –0.0333
	maximum	L (m) = (diagonal screen size in inches) × 0.0269 –0.0347
ET-ELT30	minimum	L (m) = (diagonal screen size in inches) × 0.0501 –0.1130
	maximum	L (m) = (diagonal screen size in inches) × 0.0901 –0.1114
ET-ELT31	minimum	L (m) = (diagonal screen size in inches) × 0.0870 +0.1005
	maximum	L (m) = (diagonal screen size in inches) × 0.1586 +0.0941

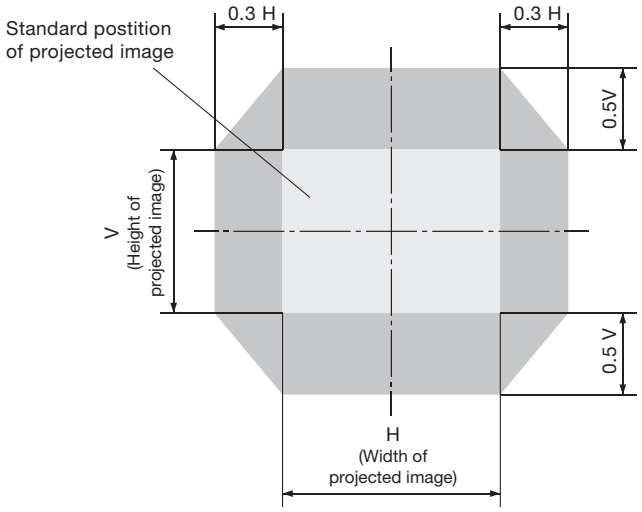
Aspect ratio 16:9

Supplied lens	*minimum*	***L (m) = (diagonal screen size in inches) × 0.0294 –0.0332***
	maximum	***L (m) = (diagonal screen size in inches) × 0.0545 –0.0334***
ET-ELW31	minimum	L (m) = (diagonal screen size in inches) × 0.0180 –0.0330
	maximum	L (m) = (diagonal screen size in inches) × 0.0234 +0.0350
ET-ELW30	minimum	L (m) = (diagonal screen size in inches) × 0.0225 –0.0333
	maximum	L (m) = (diagonal screen size in inches) × 0.0293 –0.0347
ET-ELT30	minimum	L (m) = (diagonal screen size in inches) × 0.0545 –0.1130
	maximum	L (m) = (diagonal screen size in inches) × 0.0981 –0.1114
ET-ELT31	minimum	L (m) = (diagonal screen size in inches) × 0.0948 +0.1005
	maximum	L (m) = (diagonal screen size in inches) × 0.1728 +0.0941

- **Distances calculated with the above equations will include a slight error.**

Shift range

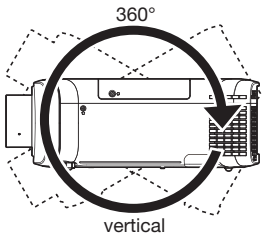
Optical axis shift function allows to shift the position of a projected image as shown below.



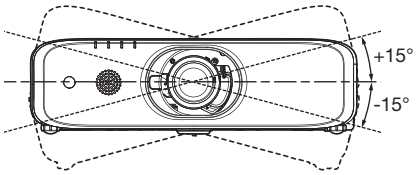
Installable angle

Install the projector at an angle within the range shown below.

• Vertical direction
The projector may be installed at a vertical angle of 360°.



• Horizontal direction
The projector may be installed at a horizontal angle of ±15°.



List of compatible signals

The following table specifies the video signals compatible with the projector.
This projector supports the signal with ✓ in the compatible signal column.

- The content of the compatible signal column is as follows.
  ––V : VIDEO, Y/C
  ––R : RGB
  ––Y : YC_BC_R/YP_BP_R
  ––H : HDMI

Compatible signal	Resolution (Dots)	Scanning freq. H (KHz)	Scanning freq. V (Hz)	Dot clock freq. (MHz)	Format	Plug and Play*1 RGB2	Plug and Play*1 HDMI
NTSC/NTSC4.43/ PAL-M/PAL60	720 x 480i	15.7	59.9	-	V	-	-
PAL/PAL-N/SECAM	720 x 576i	15.6	50.0	-	V	-	-
525 (480) /60i	712 x 483i	15.7	59.9	13.5	R/Y	-	-
625 (576) /50i	702 x 575i	15.6	50.0	13.5	R/Y	-	-
525 (480) /60i	720 (1440) x 480i*2	15.7	59.9	27.0	H	-	-
625 (576) /50i	720 (1440) x 576i*2	15.6	50.0	27.0	H	-	-
525 (480) /60p	720 x 480	31.5	59.9	27.0	R/Y/H	-	✓
625 (576) /50p	720 x 576	31.3	50.0	27.0	R/Y/H	-	✓
750 (720) /60p	1280 x 720	45.0	60.0	74.3	R/Y/H	-	✓
750 (720) /50p	1280 x 720	37.5	50.0	74.3	R/Y/H	-	✓
1125 (1080) /60i*3	1920 x 1080i	33.8	60.0	74.3	R/Y/H	-	✓
1125 (1080) /50i	1920 x 1080i	28.1	50.0	74.3	R/Y/H	-	✓
1125 (1080) /24p	1920 x 1080	27.0	24.0	74.3	R/Y/H	-	✓
1125 (1080) /24sF	1920 x 1080i	27.0	48.0	74.3	R/Y/H	-	-
1125 (1080) /25p	1920 x 1080	28.1	25.0	74.3	R/Y/H	-	-
1125 (1080) /30p	1920 x 1080	33.8	30.0	74.3	R/Y/H	-	-
1125 (1080) /60p	1920 x 1080	67.5	60.0	148.5	R/Y/H	-	✓
1125 (1080) /50p	1920 x 1080	56.3	50.0	148.5	R/Y/H	-	✓
640 x 400	640 x 400	31.5	70.1	25.2	R/H	-	-
	640 x 400	37.9	85.1	31.5	R/H	-	-
640 x 480	640 x 480	31.5	59.9	25.2	R/H	✓	✓
	640 x 480	35.0	66.7	30.2	R/H	-	-
	640 x 480	37.9	72.8	31.5	R/H	✓	✓
	640 x 480	37.5	75.0	31.5	R/H	✓	✓
	640 x 480	43.3	85.0	36.0	R/H	-	-
800 x 600	800 x 600	35.2	56.3	36.0	R/H	✓	✓
	800 x 600	37.9	60.3	40.0	R/H	✓	✓
	800 x 600	48.1	72.2	50.0	R/H	✓	✓
	800 x 600	46.9	75.0	49.5	R/H	✓	✓
	800 x 600	53.7	85.1	56.3	R/H	-	-
832 x 624	832 x 624	49.7	74.6	57.3	R/H	✓	✓
1024 x 768	1024 x 768	39.6	50.0	51.9	R/H	-	-
	1024 x 768	48.4	60.0	65.0	R/H	-	-
	1024 x 768	56.5	70.1	75.0	R/H	✓	✓
	1024 x 768	60.0	75.0	78.8	R/H	✓	✓
	1024 x 768	68.7	85.0	94.5	R/H	-	-
	1024 x 768	81.4	100.0	113.3	R/H	-	-
1152 x 864	1152 x 864	53.7	60.0	81.6	R/H	-	-
	1152 x 864	67.5	75.0	108.0	R/H	-	-
	1152 x 864	77.1	85.0	119.7	R/H	-	-
1152 x 870	1152 x 870	68.7	75.1	100.0	R/H	✓	✓
1280 x 720	1280 x 720	37.1	49.8	60.5	R/H	-	-
	1280 x 720	44.8	59.9	74.5	R/H	-	-
1280 x 768	1280 x 768	60.3	74.9	102.3	R/H	-	-
	1280 x 768	68.6	84.8	117.5	R/H	-	-
1280 x 800	1280 x 800	41.3	50.0	68.0	R/H	-	-
	1280 x 800	49.7	59.8	83.5	R/H	-	-
	1280 x 800	62.8	74.9	106.5	R/H	-	-
	1280 x 800	71.6	84.9	122.5	R/H	-	-

The following table specifies the video signals compatible with the projector.
This projector supports the signal with ✓ in the compatible signal column.

- The content of the compatible signal column is as follows.
  ––V : VIDEO, Y/C
  ––R : RGB
  ––Y : YC_BC_R/YP_BP_R
  ––H : HDMI

Compatible signal	Resolution (Dots)	Scanning freq. H (KHz)	Scanning freq. V (Hz)	Dot clock freq. (MHz)	Format	Plug and Play*1 RGB2	Plug and Play*1 HDMI
1280 x 960	1280 x 960	60.0	60.0	108.0	R/H	-	-
1280 x 1024	1280 x 1024	64.0	60.0	108.0	R/H	-	-
	1280 x 1024	80.0	75.0	135.0	R/H	-	-
	1280 x 1024	91.1	85.0	157.5	R/H	-	-
1366 x 768	1366 x 768	39.6	49.9	69.0	R/H	-	-
	1366 x 768	47.7	59.8	85.5	R/H	-	-
1400 x 1050	1400 x 1050	65.2	60.0	122.6	R/H	-	-
	1400 x 1050	65.3	60.0	121.8	R/H	-	-
	1400 x 1050	82.3	74.9	156.0	R/H	-	-
1440 x 900	1440 x 900	55.9	59.9	106.5	R/H	-	-
1600 x 900	1600 x 900	46.4	49.9	96.5	R/H	-	-
	1600 x 900	55.9	60.0	119.0	R/H	-	-
1600 x 1200	1600 x 1200	75.0	60.0	162.0	R/H	✓	✓
1680 x 1050	1680 x 1050	54.1	50.0	119.5	R/H	-	-
	1680 x 1050	65.3	60.0	146.3	R/H	-	-
1920 x 1080	1920 x 1080	55.6	49.9	141.5	R/H	-	-
	1920 x 1080*4	66.6	59.9	138.5	R/H	-	-
1920 x 1200	1920 x 1200	61.8	49.9	158.3	R/H	-	-
	1920 x 1200*4	74.0	60.0	154.0	R/H	-	-

***1 Signals with a ✓ in the Plug and play columns are signals described in EDID (extended display identification data) of the projector. If a signal has no ✓ in the Plug and play columns but has an entry in the Format column, it can be input. For signals without a ✓ in the Plug and play columns, there are instances when resolution cannot be selected on the computer even though the projector supports them.**

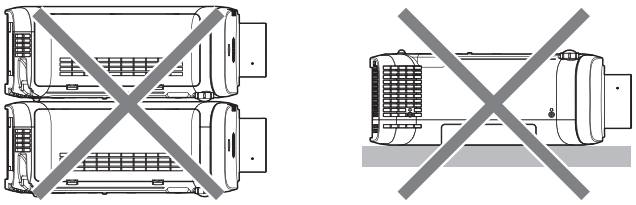
***2 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal)**

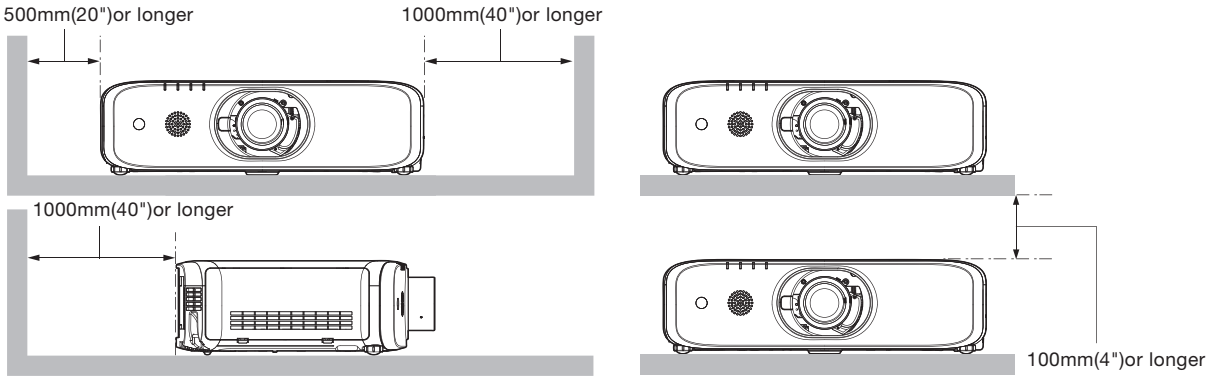
***3 When 1125(1035)/60i signal input, it displays as 1125(1080)/60i signals.**

***4 Compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).**

Notes on projector placement and operation

- Prevent hot and cool air from the air conditioning system to blow directly to the ventilation ports (intake and exhaust) of the projector.
- Do not stack projectors on top of each other.
- Do not block the ventilation ports (intake and exhaust) of the projector.
- Do not use the projector supporting it by the top.





- Do not install the projector in a confined space.
  When installing the projector in a confined space, provide air conditioning or ventilation separately. Exhaust heat may accumulate when the ventilation is not enough, triggering the protection circuit of the projector.