Panasonic

S P E C   F I L E

Product Number :   PT-**MW630/MW630L**

Product Name :   LCD Projectors

LCD Projectors

PT-**MW630/MW630L**

Specifications

Main unit

Power supply		AC 100-240 V, 50/60 Hz
Power consumption*1		505W
		(during standby)
		Approx. 0.5 W (When [STANDBY MODE] is set to [ECO])
		Approx. 22 W (When [STANDBY MODE] is set to [NORMAL])
		Approx. 47 W(When [IN STANDBY MODE] in [AUDIO SETTING] is set to [ON], maximum audio is output, and USB memory is inserted in the <VIEWER/PAIRING> terminal)
		Approx. 115 W(When [QUICK STARTUP] is set to [ON], [IN STANDBY MODE] in [AUDIO SETTING] is set to [ON], maximum audio is output, and the power is supplied from the <DC OUT> terminal)
BTU value		Max 1,724BTU
LCD panel	Panel size	19.3 mm (0.76 inches) diagonal (16:10 aspect ratio)
	Display method	Transparent LCD panel (× 3, R/G/B)
	Drive method	Active matrix method
	Pixels	1,024,000 (1280 × 800) × 3, total of 3,072,000 pixels
Lens	PT-MW630	Powered zoom (1.6×), focus lenses, F 1.7–2.3, f 26.8– 45.5 mm Throw ratio 1.6–2.8:1
	PT-MW630L	Optional powered zoom/focus lenses and fixed-focus lens
Light source		Laser Diode Laser class 1(Class3R for US models)
Illumination life of set		Varies depending on operation mode setting. 20,000 hours at half luminance *IEC62087: 2008 Broadcast contents, Dynamic contrast [2], Temperature: 30°C (86F), Under conditions of 0.15 mg/m^3 of particulate matter
Projection size		1.02–10.16 m (40–400 inches) diagonally, 16:10 aspect ratio
Colors		Full color (16,777,216 colors)
Light output *1		6,500 lumens (Input signals: PC, Operating mode: Normal, Dynamic mode)
Center-to-corner uniformity		90%
Contrast ratio*1		3,000,000:1(all white/all black)(Dynamic Contrast 1 or 2) (Input signals: PC, Operating mode: Normal, Dynamic mode)
Resolution		WXGA 1280 × 800 pixels
Scanning frequency	RGB	fH: 15- 91kHz, fV: 24 - 100Hz, dot clock: 162 MHz or less
	YP$_B$P$_R$ (YC$_B$C$_R$)	480i (525i): f$_H$ 15.73 kHz; fv 59.94 Hz, 576i (625i): f$_H$ 15.63 kHz; fv 50 Hz, 480p (525p): f$_H$ 31.47 kHz; fv 59.94 Hz, 576p (625p): f$_H$ 31.25 kHz; fv 50 Hz, 720 (750)/60p: f$_H$ 45.00 kHz; fv 60 Hz, 720 (750)/50p: f$_H$ 37.50 kHz; fv 50 Hz, 1080 (1125)/60i: f$_H$ 33.75 kHz; fv 60 Hz, 1080 (1125)/50i: f$_H$ 28.13 kHz; fv 50 Hz, 1080 (1125)/25p: f$_H$ 28.13 kHz; fv 25 Hz, 1080 (1125)/24p: f$_H$ 27.00 kHz; fv 24 Hz, 1080 (1125)/24sF: f$_H$ 27.00 kHz; fv 48 Hz, 1080 (1125)/30p: f$_H$ 33.75 kHz; fv 30 Hz, 1080 (1125)/60p: f$_H$ 67.50 kHz; fv 60 Hz, 1080 (1125)/50p: f$_H$ 56.25 kHz; fv 50 Hz
	Video	fH: 15.73 kHz / 15.63 kHz fV: 59.94 Hz / 50 Hz [NTSC/NTSC4.43/PAL/PAL60/PAL-N/PAL-M/SECAM]
	HDMI/DIGITAL LINK	•Moving image signal resolution: 480i (525i)*2, 576i (625i)*2, 480p (525p), 576p (625p), 720 (750)/60p, 720 (750)/50p, 1080 (1125)/60i, 1080 (1125)/50i, 1080 (1125)/25p, 1080 (1125)/24p, 1080 (1125)/24sF, 1080 (1125)/30p, 1080 (1125)/60p, 1080 (1125)/50p Still image signal resolution: 640 x 400 to 1920 x 1200 (non-interlace) •Dot clock frequency: 25 MHz to 162 MHz

LCD Projectors

PT-**MW630/MW630L**

Keystone correction range

Projection Lens Model No.	Throw ratio	Only [KEYSTONE] used[3]		[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
Standard zoom lens/ ET-ELS20*	1.6-2.8	± 35	± 35	± 20	± 15	0.9	1.8	0.5	1.0
ET-ELW21	0.8	± 22	± 15	± 8	± 8	1.7	4.3	1.0	2.6
ET-ELW22	0.8-1.0	± 22	± 15	± 8	± 8	1.7	4.3	1.0	2.6
ET-ELW20	1.2-1.7	± 35	± 35	± 20	± 15	1.2	3.1	0.7	1.8
ET-ELT20	2.7-4.5	± 35	± 35	± 20	± 15	0.6	1.1	0.3	0.6
ET-ELT21	4.4-7.1	± 35	± 35	± 20	± 15	0.4	0.7	0.2	0.4

* Available only in the US, Canada and Europe.

Keystone correction range

Optical axis shift

Vertical ±67%, Horizontal ±35% (Supplied lens/ET-ELS20/ET-ELW20/ ET-ELT20/ET-ELT21)
Vertical ±60%, Horizontal ±30% (ET-ELW22)
NOTE: Optical axis shift function cannot be operated when used with the ET-ELW21.

Installation	Ceiling/desk/AUTO, front/rear, 360 degree free installation
Speaker	4.0 cm round-type x 1
Maximum usable volume output	10 W (monaural)
Terminals	HDMI 1 IN	HDMI 19 pin, HDCP and Deep color compatible Audio signals : Linear PCM (Sample frequency : 48 kHz/44.1 kHz/32 kHz)

Terminals

HDMI 1 IN — HDMI 19 pin, HDCP and Deep color compatible
Audio signals : Linear PCM (Sample frequency : 48 kHz/44.1 kHz/32 kHz)

HDMI 2 IN — HDMI 19 pin, HDCP and Deep color compatible
Audio signals : Linear PCM (Sample frequency : 48 kHz/44.1 kHz/32 kHz)

RGB 1 IN — BNC (female) x 5, RGB/Y P_B/P_R (C_B/C_R)

RGB 2 IN — D-Sub 15 p (female) x 1, RGB/Y P_B/P_R (C_B/C_R)

MONITOR OUT — D-Sub 15 p (female) x 1, RGB/Y P_B/P_R (C_B/C_R)

VIDEO IN — Pin jack x 1

AUDIO IN 1 — M3 stereo jack x 1(L-R)

AUDIO IN 2 — M3 stereo jack x 1(L-R)

AUDIO IN 3 — Pin jack x 2(L-R)

VARIABLE AUDIO OUT — M3 jack, 0 V[rms] to 2.0 V[rms] variable, output imedance 2.2 k ohms and less

SERIAL IN — D-sub 9 pin, RS-232C compliant, for computer control use

REMOTE 1 — D-Sub 9 p (female) x 1, for external control (parallel)

REMOTE 2 — M3 jack x 1(L-R) for link control (for wired remote control)

LAN — RJ-45 x 1 for network connection, 10/100Base-TX, compliant with PJLink™(Class 2)

DIGITAL LINK / LAN — RJ-45 x 1 for network and DIGITAL LINK (video/network/serial control) connection, 100Base-TX, compliant with PJLink™(Class 2), Deep Color, HDCP

VIEWER / PAIRING — USB type-A × 1

DC OUT — USB type-A × 1(DC 5V, 2A(Max))

Power cord length	3.0m(9ft 10in)
Cabinet materials	Molded plastic

PT-**MW630/MW630L**

Dimensions (W × H × D)	PT-MW630	560 × 205[*4]× 443mm (22-1/16 × 8-1/16[*4]× 17-7/16inches) (with supplied lens)
	PT-MW630L	560 × 205[*4]× 428mm (22-1/16 × 8-1/16[*4]× 16-27/32inches) (without lens)
Weight[*5]	PT-MW630	Approx. 16.9 kg (37.3 lbs) (with supplied lens)
	PT-MW630L	Approx. 16.1 kg (35.5 lbs) (without lens)
Noise level[*1]		32dB (Operating mode: NORMAL/ECO), 26dB (Operating mode: QUIET)
Operating environment	Temperature	0°C (32°F) to 45°C (113°F)
		The projector cannot be used at an altitude of 2,700 m (8,858') or higher above sea level.
		The light output may decrease to protect the projector when the operating environment temperature exceeds 36 °C (96.8 °F).
	Humidity	20% to 80% (no condensation)

Remote control unit

Power supply	DC 3 V (AAA/R03/LR03 battery × 2)
Operation range	Approx. 30 m (98'5") (when operated directly in front of signal receiver)
Dimensions (W × H × D)	48 x 145 x 27 mm (1-7/8" x 5-23/32" x 1/16")
Weight	Approx. 102g (3.60 ozs.) (including batteries)

Wireless LAN[*6]

Compliance standards	IEEE802.11a/b/g/n
Transmission method	DSSS, OFDM
Modulation method	DBPSK, DQPSK, CCK, BPSK, QPSK, 16QAM, 64QAM, MIMO
Transmission speed	IEEE802.11b Maximum 11 Mbps
	IEEE802.11g/a Maximum 54 Mbps
	IEEE802.11n Maximum 300 Mbps
Communication distance	Approx. 30 m (98'5") (depending on the operating environment)

Frequency band (Channels used)

for PT-MZ670, PT-MZ670L,: IEEE802.11b/g/n: 2.412 GHz - 2.462 GH z (Channels 1 to 11)
IEEE802.11a/n: 5.180 GHz - 5.240 GHz (W52), 5.260 GHz - 5.320 GHz, 5.660 GHz - 5.700 GHz (Channels 36/40/44/48 (W52) , Channels 52/56/ 60/64 (W53, Channels 132/136/140 (part of W56))

for PT-MZ670A, PT-MZ670LA: IEEE802.11b/g/n: 2.412 GHz - 2.462 GHz (Channels 1 to 11)
IEEE802.11a/n: 5.745 GHz - 5.805 GHz (W58: excluding ch165) , 5.280 GHz - 5.320 GHz (W53: excluding ch 52), 5.745 GHz - 5.805 GHz (W58: excluding ch 165) (Channels 149/153/157/ 161 (W58: excluding ch 165))

*for Taiwan   5.280 GHz - 5.320 GHz (W53: excluding ch 52), 5.745 GHz - 5.805 GHz (W58: excluding ch 165)(Channels 56/60/64 (W53: excluding ch 52), Channels 149/153/157/161 (W58: excluding ch 165))

for PT-MZ670D, PT-MW630D : IEEE802.11b/g/n: 2.412 GHz - 2.472 GH z (Channels 1 to 13)
IEEE802.11a/n: 5.180 GHz - 5.240 GHz (W52), 5.745 GHz - 5.805 GHz (W58: excluding ch165), 5.745 GHz - 5.825 GHz (W58), 5.260 GHz - 5.320 GHz (W53) (Channels 36/40/44/48 (W52), Channels 149/153/157/161 (W58: excluding ch 165), Channels 149/153/157/161/165 (W58), Channels 52/56/60/64 (W53))

Security	When connected in infrastructure mode
	128 bits/64 bits WEP, WPA-PSK <TKIP/AES>, WPA2-PSK <TKIP/AES>, WPA-EAP/WPA2-EAP <PEAP (MS-CHAPv2)/PEAP (GTC)/EAP-TTLS (MD5) / EAP-TTLS (MS-CHAPv2)/EAP-FAST (MS-CHAPv2)/EAP-FAST (GTC)>

Other Applications

Multi Monitoring and Control Software
Logo Transfer Software
Wireless PJ (for iOS/Android)
Smart Projector Control (for iOS/Android)

Supplied accessories

Wireless remote control unit (× 1)
Power cord (3.0m x 1) (× 2 for UK and Asia)
CD-ROM (Operating Instructions × 1)
Batteries for remote control (R03/AAA type × 2)
Power cord holder (× 1)
Instruction manual (Basic guide)
Application guide

Optional accessories

Ceiling Mount Bracket	for High ceilings	ET-PKD120H
Ceiling Mount Bracket	for Low ceilings	ET-PKD120S
Ceiling Mount Bracket	Projector Mount Bracket	ET-PKE301B*7
Wireless Module Unit		ET-WM300
Replacement Filter Unit		ET-RFM100
Digital Interface Box		ET-YFB100G
DIGITAL LINK switcher		ET-YFB200G
Easy Wireless Stick		ET-UW100 *The availability of ET-UW100 varies depending on the country.
Early Warning Software		ET-SWA100 series*8
Fixed-focus lens		ET-ELW21
Zoom lens		ET-ELW22
Zoom lens		ET-ELW20
Zoom lens		ET-ELS20 *Available with US, Canada and Europe area only
Zoom lens		ET-ELT20
Zoom lens		ET-ELT21

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

*1   **Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.**
*2   **Only compatible with dot clock frequency of 27 MHz (pixel repetition signal) for 480i(525i) and 576i(625i)**
*3   **When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding total of 55°.**
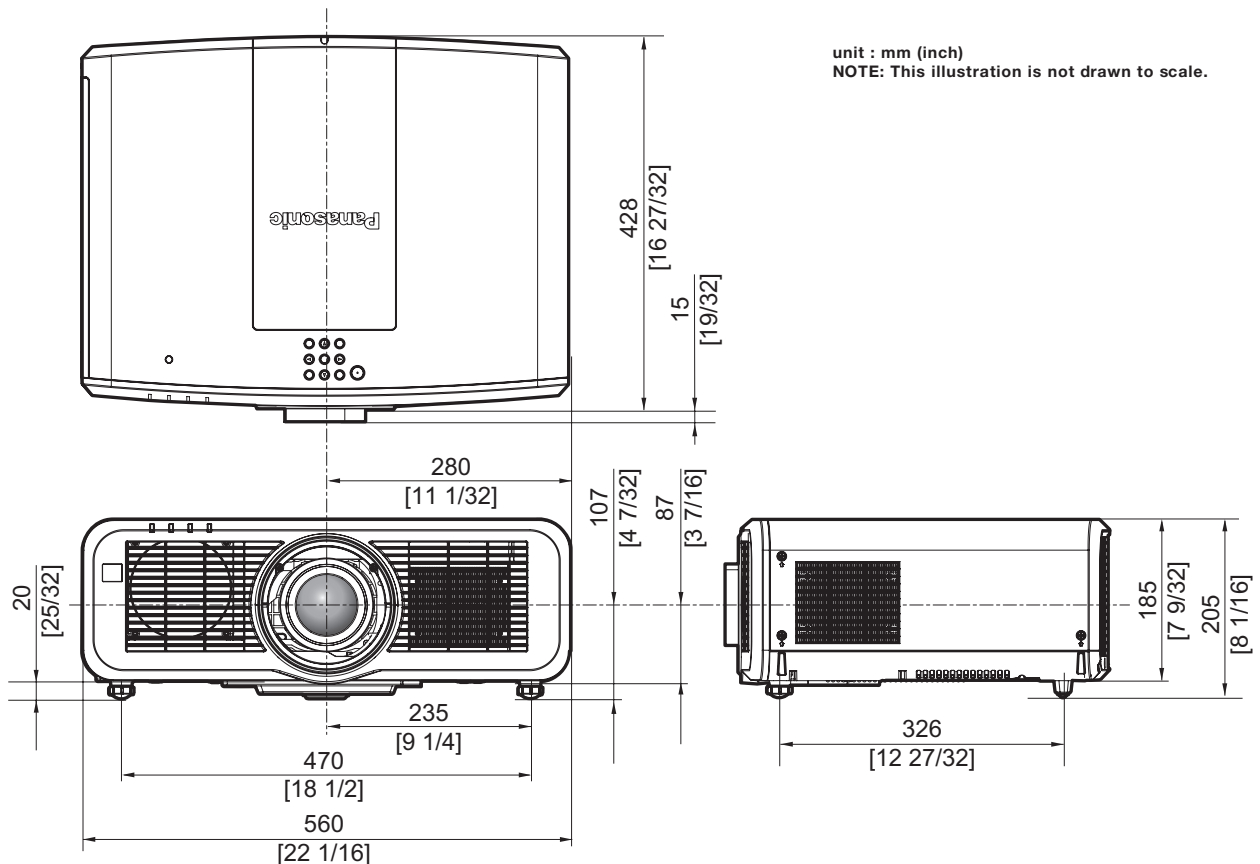***4**   **When adjustable feet shortened.**
*5   **Average value. May differ depending on models.**
*6   **Can be used when the ET-WM300 (option) is installed.**
*7   **When the projector is mounted to the existing Ceiling Mount Bracket (in combination with the Model No.: ET-PKD120H (for High Ceilings) or ET-PKD120S (for Low Ceilings), and the Model No.: ET-PKE300B (Projector Mount Bracket)), it is necessary to replace the drop-prevention wire rope with the one corresponding to this projector. Consult your dealer. Drop-prevention set (service model no.: DPPW1004ZA/X1)**
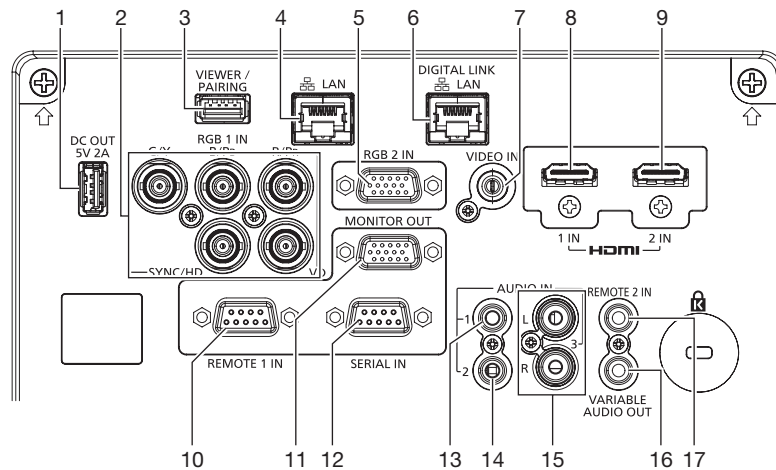***8**   **The suffix of the Model No. differs according to the license type.**

Dimensions

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

428 [16 27/32]
15 [19/32]
280 [11 1/32]
107 [4 7/32]
87 [3 7/16]
20 [25/32]
235 [9 1/4]
470 [18 1/2]
560 [22 1/16]
185 [7 9/32]
205 [8 1/16]
326 [12 27/32]

* The above dimensions are obtained when the standard zoom lens is attached.
* Actual dimensions may differ depending on the product.

Terminals

1 DC output	10 REMOTO 1 input
2 RGB 1 input	11 MONITOR output
3 VIEWER/PAIRING connector	12 SERIAL input
4 LAN connector	13 AUDIO input 1
5 RGB 2 input	14 AUDIO input 2
6 DIGITAL LINK / LAN connector	15 AUDIO input 3
7 VIDEO input	16 VARIABLE AUDIO output
8 HDMI 1 input	17 REMOTO 2 input
9 HDMI 2 input	

Standard setting-up position

*1 When the lens protrudes to the maximum.

A:	ELW21	5mm
	ELW22	50mm
	ELW20	35mm
	ELS20/Standard lens	15mm
	ELT20	36mm
	ELT21	32mm

*2 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-PKE301B.

This illustration is not drawn to scale.

unit : mm (inch)

C a u t i o n :
- 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 dropping, attach the wire that is included with the projector between the mounting bracket and the ceiling.

LCD Projectors

PT-**MW630/MW630L**

Projection distance for 16:10 aspect ratio screen

Unit: meters

Lens type			Fixed-focus lens	Zoom lens		Zoom lens		Supplied lens		Zoom lens		Zoom lens		Height from the edgeof screen tocenter of lens (H)*1		
Projection Lens Model No.			ET-ELW21	ET-ELW22		ET-ELW20		ET-ELS20*2		ET-ELT20		ET-ELT21		Fixed-focus lens ET-ELW21	Zoom lenses ET-ELW22	Zoom lenses (Other than ET-ELW22)
Throw ratio*3			0.8:1	0.8-1.0:1		1.2-1.7:1		1.6-2.8:1		2.8-4.5:1		4.5-7.2:1				
Screen size				Distance to screen (L)												
Diagonal (SD) [m]/[in]	Height (SH) [m]	Width (SW) [m]		min.	max.	min.	max.	min.	max.	min.	max	min.	max.			
1.02 / 40	0.538	0.862	0.64	—	—	1.03	1.42	*1.38*	*2.38*	2.32	3.85	3.76	6.10	0.27	—	-0.09 − 0.63
1.27 / 50	0.673	1.077	0.81	—	—	1.30	1.79	*1.74*	*2.99*	2.93	4.85	4.76	7.68	0.34	—	-0.11 − 0.79
1.52 / 60	0.808	1.292	0.99	1.01	1.26	1.58	2.16	*2.09*	*3.60*	3.54	5.84	5.75	9.26	0.40	-0.08 − 0.89	-0.14 − 0.95
1.78 / 70	0.942	1.508	1.16	1.18	1.48	1.85	2.53	*2.45*	*4.21*	4.14	6.83	6.75	10.84	0.47	-0.09 − 1.04	-0.16 − 1.10
2.03 / 80	1.077	1.723	1.33	1.36	1.70	2.12	2.90	*2.81*	*4.82*	4.75	7.82	7.74	12.42	0.54	-0.11 − 1.18	-0.18 − 1.26
2.29 / 90	1.212	1.939	1.51	1.54	1.92	2.39	3.27	*3.16*	*5.42*	5.36	8.81	8.73	14.00	0.61	-0.12 − 1.33	-0.21 − 1.42
2.54 / 100	1.346	2.154	1.68	1.71	2.14	2.66	3.64	*3.52*	*6.03*	5.97	9.80	9.73	15.58	0.67	-0.13 − 1.48	-0.23 − 1.58
3.05 / 120	1.615	2.585	2.03	2.06	2.57	3.21	4.38	*4.24*	*7.25*	7.19	11.79	11.72	18.73	0.81	-0.16 − 1.78	-0.27 − 1.89
3.81 / 150	2.019	3.231	2.55	2.59	3.23	4.02	5.48	*5.31*	*9.07*	9.01	14.76	14.70	23.47	1.01	-0.20 − 2.22	-0.34 − 2.36
5.08 / 200	2.692	4.308	3.42	3.47	4.32	5.38	7.33	*7.09*	*12.11*	12.05	19.72	19.67	31.36	1.35	-0.27 − 2.96	-0.46 − 3.15
6.35 / 250	3.365	5.385	4.29	4.35	5.41	6.74	9.17	*8.88*	*15.15*	15.10	24.68	24.64	39.26	1.68	-0.34 − 3.70	-0.57 − 3.94
7.62 / 300	4.039	6.462	5.16	5.23	6.50	8.10	11.02	*10.66*	*18.20*	18.14	29.64	29.61	47.15	2.02	-0.40 − 4.44	-0.69 − 4.73
8.89 / 350	4.712	7.539	6.03	6.11	7.59	9.46	12.86	*12.45*	*21.24*	21.18	34.59	34.58	55.04	2.36	-0.47 − 5.18	-0.80 − 5.51
10.16 / 400	5.385	8.616	6.89	6.99	8.68	10.82	14.71	*14.24*	*24.28*	24.22	39.55	39.55	62.94	2.69	-0.54 − 5.92	-0.92 − 6.30

Unit: feet

Lens type			Fixed-focus lens	Zoom lens		Zoom lens		Supplied lens		Zoom lens		Zoom lens		Height from the edgeof screen tocenter of lens (H)*1		
Projection Lens Model No.			ET-ELW21	ET-ELW22		ET-ELW20		ET-ELS20*2		ET-ELT20		ET-ELT21		Fixed-focus lens ET-ELW21	Zoom lenses ET-ELW22	Zoom lenses (Other than ET-ELW22)
Throw ratio*3			0.8:1	0.8-1.0:1		1.2-1.7:1		1.6-2.8:1		2.8-4.5:1		4.5-7.2:1				
Screen size				Distance to screen (L)												
Diagonal (SD) [m]/[in]	Height (SH) [m]	Width (SW) [m]		min.	max.	min.	max.	min.	max.	min.	max	min.	max.			
1.02 / 40	0.538	0.862	2.1	—	—	3.4	4.7	*4.5*	*7.8*	7.6	12.6	12.3	20.0	0.9	—	-0.3 − 2.1
1.27 / 50	0.673	1.077	2.7	—	—	4.3	5.9	*5.7*	*9.8*	9.6	15.9	15.6	25.2	1.1	—	-0.4 − 2.6
1.52 / 60	0.808	1.292	3.2	3.3	4.1	5.2	7.1	*6.9*	*11.8*	11.6	19.2	18.9	30.4	1.3	-0.3 − 2.9	-0.5 − 3.1
1.78 / 70	0.942	1.508	3.8	3.9	4.9	6.1	8.3	*8.0*	*13.8*	13.6	22.4	22.1	35.6	1.5	-0.3 − 3.4	-0.5 − 3.6
2.03 / 80	1.077	1.723	4.4	4.5	5.6	7.0	9.5	*9.2*	*15.8*	15.6	25.7	25.4	40.7	1.8	-0.4 − 3.9	-0.6 − 4.1
2.29 / 90	1.212	1.939	5.0	5.1	6.3	7.8	10.7	*10.4*	*17.8*	17.6	28.9	28.6	45.9	2.0	-0.4 − 4.4	-0.7 − 4.7
2.54 / 100	1.346	2.154	5.5	5.6	7.0	8.7	11.9	*11.5*	*19.8*	19.6	32.2	31.9	51.1	2.2	-0.4 − 4.9	-0.8 − 5.2
3.05 / 120	1.615	2.585	6.7	6.8	8.4	10.5	14.4	*13.9*	*23.8*	23.6	38.7	38.5	61.5	2.7	-0.5 − 5.8	-0.9 − 6.2
3.81 / 150	2.019	3.231	8.4	8.5	10.6	13.2	18.0	*17.4*	*29.8*	29.6	48.4	48.2	77.0	3.3	-0.7 − 7.3	-1.1 − 7.7
5.08 / 200	2.692	4.308	11.2	11.4	14.2	17.7	24.0	*23.3*	*39.7*	39.5	64.7	64.5	102.9	4.4	-0.9 − 9.7	-1.5 −10.3
6.35 / 250	3.365	5.385	14.1	14.3	17.7	22.1	30.1	*29.1*	*49.7*	49.5	81.0	80.8	128.8	5.5	-1.1 −12.1	-1.9 −12.9
7.62 / 300	4.039	6.462	16.9	17.2	21.3	26.6	36.2	*35.0*	*59.7*	59.5	97.2	97.1	154.7	6.6	-1.3 −14.6	-2.3 −15.5
8.89 / 350	4.712	7.539	19.8	20.0	24.9	31.0	42.2	*40.8*	*69.7*	69.5	113.5	113.5	180.6	7.7	-1.5 −17.0	-2.6 −18.1
10.16 / 400	5.385	8.616	22.6	22.9	28.5	35.5	48.3	*46.7*	*79.7*	79.5	129.8	129.8	206.5	8.8	-1.8 −19.4	-3.0 −20.7

- 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.
- The brightness varies depending on the zoom setting.
- *1 When the fixed-focus lens (Model No.: ET-ELW21) is attached, the lens shift is not possible. The height position (H) becomes SH/2.
- *2 Available only in the US, Canada and Europe.
- *3 The throw ratio is based on the value during projection with the projected image size of 2.03 m (80").

Projection distance for 16:9 aspect ratio screen

Unit: meters

Lens type			Fixed-focus lens	Zoom lens		Zoom lens		Supplied lens		Zoom lens		Zoom lens		Height from the edge of screen to center of lens (H)*1		
Projection Lens Model No.			ET-ELW21	ET-ELW22		ET-ELW20		ET-ELS20*2		ET-ELT20		ET-ELT21		Fixed-focus lens ET-ELW21	Zoom lenses ET-ELW22	Zoom lenses (Other than ET-ELW22)
Throw ratio*3			0.8:1	0.8-1.0:1		1.2-1.7:1		1.6-2.8:1		2.8-4.5:1		4.5-7.2:1				
Screen size			Distance to screen (L)													
Diagonal (SD) [m]/[in]	Height (SH) [m]	Width (SW) [m]		min.	max.	min.	max.	min.	max.	min.	max	min.	max.			
1.02/40	0.498	0.886	0.66	—	—	1.06	1.46	1.42	2.45	2.39	3.96	3.87	6.28	0.25	—	-0.12 – 0.62
1.27/50	0.623	1.107	0.84	—	—	1.34	1.84	1.79	3.08	3.01	4.98	4.90	7.90	0.31	—	-0.15 – 0.77
1.52/60	0.747	1.328	1.01	1.04	1.30	1.62	2.22	2.15	3.70	3.64	6.00	5.92	9.52	0.37	-0.12 – 0.87	-0.18 – 0.93
1.78/70	0.872	1.550	1.19	1.22	1.52	1.90	2.60	2.52	4.33	4.26	7.02	6.94	11.15	0.44	-0.15 – 1.02	-0.21 – 1.08
2.03/80	0.996	1.771	1.37	1.40	1.75	2.18	2.98	2.89	4.95	4.89	8.04	7.96	12.77	0.50	-0.17 – 1.16	-0.24 – 1.24
2.29/90	1.121	1.992	1.55	1.58	1.97	2.46	3.36	3.25	5.58	5.51	9.06	8.98	14.39	0.56	-0.19 – 1.31	-0.27 – 1.39
2.54/100	1.245	2.214	1.73	1.76	2.20	2.74	3.74	3.62	6.20	6.14	10.08	10.00	16.01	0.62	-0.21 – 1.45	-0.30 – 1.55
3.05/120	1.494	2.657	2.09	2.12	2.65	3.30	4.50	4.35	7.45	7.39	12.12	12.05	19.26	0.75	-0.25 – 1.74	-0.37 – 1.86
3.81/150	1.868	3.321	2.62	2.67	3.32	4.14	5.64	5.46	9.33	9.27	15.18	15.11	24.13	0.93	-0.31 – 2.18	-0.46 – 2.32
5.08/200	2.491	4.428	3.52	3.57	4.44	5.53	7.53	7.29	12.45	12.39	20.27	20.22	32.24	1.25	-0.42 – 2.91	-0.61 – 3.10
6.35/250	3.113	5.535	4.41	4.47	5.56	6.93	9.43	9.13	15.58	15.52	25.37	25.33	40.35	1.56	-0.52 – 3.63	-0.76 – 3.87
7.62/300	3.736	6.641	5.30	5.38	6.68	8.33	11.33	10.96	18.70	18.64	30.46	30.44	48.47	1.87	-0.62 – 4.36	-0.91 – 4.65
8.89/350	4.358	7.748	6.19	6.28	7.80	9.72	13.22	12.80	21.83	21.77	35.56	35.55	56.58	2.18	-0.73 – 5.08	-1.07 – 5.42
10.16/400	4.981	8.855	7.09	7.19	8.93	11.12	15.12	14.63	24.95	24.90	40.66	40.66	64.69	2.49	-0.83 – 5.81	-1.22 – 6.20

Unit: feet

Lens type			Fixed-focus lens	Zoom lens		Zoom lens		Supplied lens		Zoom lens		Zoom lens		Height from the edge of screen to center of lens (H)*1		
Projection Lens Model No.			ET-ELW21	ET-ELW22		ET-ELW20		ET-ELS20*2		ET-ELT20		ET-ELT21		Fixed-focus lens ET-ELW21	Zoom lenses ET-ELW22	Zoom lenses (Other than ET-ELW22)
Throw ratio*3			0.8:1	0.8-1.0:1		1.2-1.7:1		1.6-2.8:1		2.8-4.5:1		4.5-7.2:1				
Screen size			Distance to screen (L)													
Diagonal (SD) [m]/[in]	Height (SH) [m]	Width (SW) [m]		min.	max.	min.	max.	min.	max.	min.	max	min.	max.			
1.02/40	0.498	0.886	2.2	—	—	3.5	4.8	4.7	8.0	7.8	13.0	12.7	20.6	0.8	—	-0.4 – 2.0
1.27/50	0.623	1.107	2.8	—	—	4.4	6.0	5.9	10.1	9.9	16.3	16.1	25.9	1.0	—	-0.5 – 2.5
1.52/60	0.747	1.328	3.3	3.4	4.3	5.3	7.3	7.1	12.1	11.9	19.7	19.4	31.2	1.2	-0.4 – 2.9	-0.6 – 3.1
1.78/70	0.872	1.550	3.9	4.0	5.0	6.2	8.5	8.3	14.2	14.0	23.0	22.8	36.6	1.4	-0.5 – 3.3	-0.7 – 3.5
2.03/80	0.996	1.771	4.5	4.6	5.7	7.2	9.8	9.5	16.2	16.0	26.4	26.1	41.9	1.6	-0.6 – 3.8	-0.8 – 4.1
2.29/90	1.121	1.992	5.1	5.2	6.5	8.1	11.0	10.7	18.3	18.1	29.7	29.5	47.2	1.8	-0.6 – 4.3	-0.9 – 4.6
2.54/100	1.245	2.214	5.7	5.8	7.2	9.0	12.3	11.9	20.3	20.1	33.1	32.8	52.5	2.0	-0.7 – 4.8	-1.0 – 5.1
3.05/120	1.494	2.657	6.9	7.0	8.7	10.8	14.8	14.3	24.4	24.2	39.8	39.5	63.2	2.5	-0.8 – 5.7	-1.2 – 6.1
3.81/150	1.868	3.321	8.6	8.8	10.9	13.6	18.5	17.9	30.6	30.4	49.8	49.6	79.2	3.1	-1.0 – 7.2	-1.5 – 7.6
5.08/200	2.491	4.428	11.5	11.7	14.6	18.1	24.7	23.9	40.8	40.6	66.5	66.3	105.8	4.1	-1.4 – 9.5	-2.0 –10.2
6.35/250	3.113	5.535	14.5	14.7	18.2	22.7	30.9	30.0	51.1	50.9	83.2	83.1	132.4	5.1	-1.7 –11.9	-2.5 –12.7
7.62/300	3.736	6.641	17.4	17.7	21.9	27.3	37.2	36.0	61.4	61.2	99.9	99.9	159.0	6.1	-2.0 –14.3	-3.0 –15.3
8.89/350	4.358	7.748	20.3	20.6	25.6	31.9	43.4	42.0	71.6	71.4	116.7	116.6	185.6	7.2	-2.4 –16.7	-3.5 –17.8
10.16/400	4.981	8.855	23.3	23.6	29.3	36.5	49.6	48.0	81.9	81.7	133.4	133.4	212.2	8.2	-2.7 –19.1	-4.0 –20.3

- 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.
- The brightness varies depending on the zoom setting.

*1 When the fixed-focus lens (Model No.: ET-ELW21) is attached, the lens shift is not possible. The height position (H) becomes SH/2.
*2 Available only in the US, Canada and Europe.
*3 The throw ratio is based on the value during projection with the projected image size of 2.03 m (80").

LCD Projectors

PT-**MW630/MW630L**

Projection distance for 4:3 aspect ratio screen

Unit: meters

Lens type			Fixed-focus lens	Zoom lens		Zoom lens		*Supplied lens*		Zoom lens		Zoom lens		Height from the edge of screen to center of lens (H)*1		
Projection Lens Model No.			ET-ELW21	ET-ELW22		ET-ELW20		ET-ELS20*2		ET-ELT20		ET-ELT21		Fixed-focus lens ET-ELW21	Zoom lenses ET-ELW22	Zoom lenses (Other than ET-ELW22)
Throw ratio*3			0.9:1	1.0-1.2:1		1.5-2.0:1		2.0-3.4:1		3.3-5.5:1		5.4-8.7:1				
Screen size			Distance to screen (L)													
Diagonal (SD) [m]	[in]	Height (SH) [m]	Width (SW) [m]	min.	max.	min.	max.	min.	max.	min.	max	min.	max.			
1.02	40	0.610	0.813	0.73	—	—	1.18	1.62	*1.57*	*2.70*	2.64	4.38	4.29	6.94	0.30	—	-0.10 – 0.71
1.27	50	0.762	1.016	0.93	—	—	1.48	2.04	*1.97*	*3.39*	3.33	5.50	5.41	8.73	0.38	—	-0.13 – 0.89
1.52	60	0.914	1.219	1.12	1.15	1.44	1.79	2.45	*2.38*	*4.08*	4.02	6.62	6.54	10.51	0.46	-0.09 – 1.01	-0.16 – 1.07
1.78	70	1.067	1.422	1.32	1.35	1.68	2.10	2.87	*2.78*	*4.77*	4.71	7.75	7.67	12.30	0.53	-0.11 – 1.17	-0.18 – 1.25
2.03	80	1.219	1.626	1.52	1.55	1.93	2.41	3.29	*3.18*	*5.46*	5.40	8.87	8.79	14.09	0.61	-0.12 – 1.34	-0.21 – 1.43
2.29	90	1.372	1.829	1.71	1.75	2.18	2.71	3.71	*3.59*	*6.15*	6.08	9.99	9.92	15.87	0.69	-0.14 – 1.51	-0.23 – 1.60
2.54	100	1.524	2.032	1.91	1.94	2.42	3.02	4.12	*3.99*	*6.84*	6.77	11.11	11.04	17.66	0.76	-0.15 – 1.68	-0.26 – 1.78
3.05	120	1.829	2.438	2.30	2.34	2.92	3.64	4.96	*4.80*	*8.21*	8.15	13.36	13.29	21.24	0.91	-0.18 – 2.01	-0.31 – 2.14
3.81	150	2.286	3.048	2.89	2.94	3.66	4.56	6.21	*6.01*	*10.28*	10.22	16.73	16.67	26.60	1.14	-0.23 – 2.51	-0.39 – 2.67
5.08	200	3.048	4.064	3.88	3.94	4.90	6.10	8.30	*8.04*	*13.72*	13.66	22.34	22.30	35.53	1.52	-0.30 – 3.35	-0.52 – 3.57
6.35	250	3.810	5.080	4.86	4.93	6.13	7.64	10.39	*10.06*	*17.16*	17.10	27.95	27.92	44.47	1.91	-0.38 – 4.19	-0.65 – 4.46
7.62	300	4.572	6.096	5.85	5.93	7.37	9.18	12.48	*12.08*	*20.61*	20.55	33.57	33.55	53.40	2.29	-0.46 – 5.03	-0.78 – 5.35
8.89	350	5.334	7.112	6.83	6.93	8.60	10.72	14.57	*14.10*	*24.05*	23.99	39.18	39.18	62.34	2.67	-0.53 – 5.87	-0.91 – 6.24
10.16	400	6.096	8.128	7.81	7.92	9.84	12.25	16.66	*16.12*	*27.49*	27.43	44.79	44.80	71.28	3.05	-0.61 – 6.71	-1.04 – 7.13

Unit: feet

Lens type			Fixed-focus lens	Zoom lens		Zoom lens		*Supplied lens*		Zoom lens		Zoom lens		Height from the edge of screen to center of lens (H)*1		
Projection Lens Model No.			ET-ELW21	ET-ELW22		ET-ELW20		ET-ELS20*2		ET-ELT20		ET-ELT21		Fixed-focus lens ET-ELW21	Zoom lenses ET-ELW22	Zoom lenses (Other than ET-ELW22)
Throw ratio*3			0.9:1	1.0-1.2:1		1.5-2.0:1		2.0-3.4:1		3.3-5.5:1		5.4-8.7:1				
Screen size			Distance to screen (L)													
Diagonal (SD) [m]	[in]	Height (SH) [m]	Width (SW) [m]	min.	max.	min.	max.	min.	max.	min.	max	min.	max.			
1.02	40	0.610	0.813	2.4	—	—	3.9	5.3	*5.2*	*8.9*	8.7	14.4	14.1	22.8	1.0	—	-0.3 – 2.3
1.27	50	0.762	1.016	3.1	—	—	4.9	6.7	*6.5*	*11.1*	10.9	18.0	17.7	28.6	1.2	—	-0.4 – 2.9
1.52	60	0.914	1.219	3.7	3.8	4.7	5.9	8.0	*7.8*	*13.4*	13.2	21.7	21.5	34.5	1.5	-0.3 – 3.3	-0.5 – 3.5
1.78	70	1.067	1.422	4.3	4.4	5.5	6.9	9.4	*9.1*	*15.6*	15.5	25.4	25.2	40.4	1.7	-0.4 – 3.8	-0.6 – 4.1
2.03	80	1.219	1.626	5.0	5.1	6.3	7.9	10.8	*10.4*	*17.9*	17.7	29.1	28.8	46.2	2.0	-0.4 – 4.4	-0.7 – 4.7
2.29	90	1.372	1.829	5.6	5.7	7.2	8.9	12.2	*11.8*	*20.2*	19.9	32.8	32.5	52.1	2.3	-0.5 – 5.0	-0.8 – 5.2
2.54	100	1.524	2.032	6.3	6.4	7.9	9.9	13.5	*13.1*	*22.4*	22.2	36.5	36.2	57.9	2.5	-0.5 – 5.5	-0.9 – 5.8
3.05	120	1.829	2.438	7.5	7.7	9.6	11.9	16.3	*15.7*	*26.9*	26.7	43.8	43.6	69.7	3.0	-0.6 – 6.6	-1.0 – 7.0
3.81	150	2.286	3.048	9.5	9.6	12.0	15.0	20.4	*19.7*	*33.7*	33.5	54.9	54.7	87.3	3.7	-0.8 – 8.2	-1.3 – 8.8
5.08	200	3.048	4.064	12.7	12.9	16.1	20.0	27.2	*26.4*	*45.0*	44.8	73.3	73.2	116.6	5.0	-1.0 –11.0	-1.7 –11.7
6.35	250	3.810	5.080	15.9	16.2	20.1	25.1	34.1	*33.0*	*56.3*	56.1	91.7	91.6	145.9	6.3	-1.2 – 13.7	-2.1 –14.6
7.62	300	4.572	6.096	19.2	19.5	24.2	30.1	40.9	*39.6*	*67.6*	67.4	110.1	110.1	175.2	7.5	-1.5 –16.5	-2.6 –17.6
8.89	350	5.334	7.112	22.4	22.7	28.2	35.2	47.8	*46.3*	*78.9*	78.7	128.5	128.5	204.5	8.8	-1.7 – 19.3	-3.0 –20.5
10.16	400	6.096	8.128	25.6	26.0	32.3	40.2	54.7	*52.9*	*90.2*	90.0	146.9	147.0	233.9	10.0	-2.0 – 22.0	-3.4 –23.4

- 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.
- The brightness varies depending on the zoom setting.
- *1 When the fixed-focus lens (Model No.: ET-ELW21) is attached, the lens shift is not possible. The height position (H) becomes SH/2.
- *2 Available only in the US, Canada and Europe.
- *3 The throw ratio is based on the value during projection with the projected image size of 2.03 m (80").

As of October 2017

Panasonic

SFL17M064Z

Formula to calculate projection distance per Projection Lens

To use a screen size not listed in this manual, check the screen size SD (m) and use the respective formula to calculate projection distance.
The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.)
When calculating a projection distance using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula for calculating the projection distance

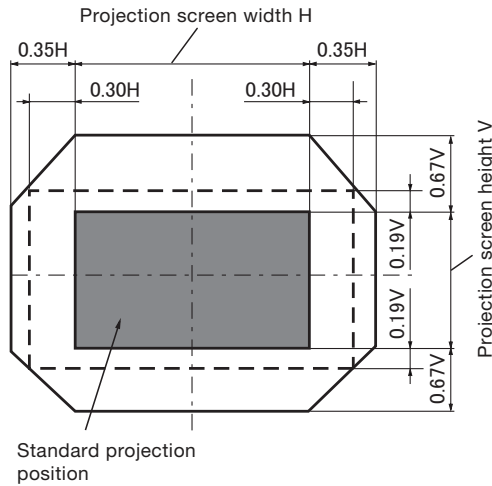| Lens type	Projection Lens Model No.	Aspect ratio		Projection distance (L) formula
Fixed-focus lens	ET-ELW21	16:10		$L = 0.6842 \times SD - 0.0572$
		16:9		$L = 0.7032 \times SD - 0.0572$
		4:3		$L = 0.7746 \times SD - 0.0572$
Short focus zoom lens	ET-ELW22	16:10	Min.	$L = 0.6931 \times SD - 0.0484$
			Max.	$L = 0.8591 \times SD - 0.0454$
		16:9	Min.	$L = 0.7123 \times SD - 0.0484$
			Max.	$L = 0.8830 \times SD - 0.0454$
		4:3	Min.	$L = 0.7846 \times SD - 0.0484$
			Max.	$L = 0.9726 \times SD - 0.0454$
	ET-ELW20	16:10	Min.	$L = 1.0702 \times SD - 0.0554$
			Max.	$L = 1.4530 \times SD - 0.0534$
		16:9	Min.	$L = 1.1000 \times SD - 0.0554$
			Max.	$L = 1.4934 \times SD - 0.0534$
		4:3	Min.	$L = 1.2116 \times SD - 0.0554$
			Max.	$L = 1.6449 \times SD - 0.0534$
Standard zoom lens	ET-ELS20 *Available with US, Canada and Europe area only.	16:10	Min.	$L = 1.4062 \times SD - 0.0504$
			Max.	$L = 2.3944 \times SD - 0.0497$
		16:9	Min.	$L = 1.4452 \times SD - 0.0504$
			Max.	$L = 2.4609 \times SD - 0.0497$
		4:3	Min.	$L = 1.5919 \times SD - 0.0504$
			Max.	$L = 2.7106 \times SD - 0.0497$
Long focus zoom lens	ET-ELT20	16:10	Min.	$L = 2.3952 \times SD - 0.1139$
			Max.	$L = 3.9041 \times SD - 0.1128$
		16:9	Min.	$L = 2.4617 \times SD - 0.1139$
			Max.	$L = 4.0126 \times SD - 0.1128$
		4:3	Min.	$L = 2.7115 \times SD - 0.1139$
			Max.	$L = 4.4197 \times SD - 0.1128$
Ultra long focus zoom lens	ET-ELT21	16:10	Min.	$L = 3.9138 \times SD - 0.2127$
			Max.	$L = 6.2152 \times SD - 0.2107$
		16:9	Min.	$L = 4.0226 \times SD - 0.2127$
			Max.	$L = 6.3880 \times SD - 0.2107$
		4:3	Min.	$L = 4.4307 \times SD - 0.2127$
			Max.	$L = 7.0361 \times SD - 0.2107$

Shift range

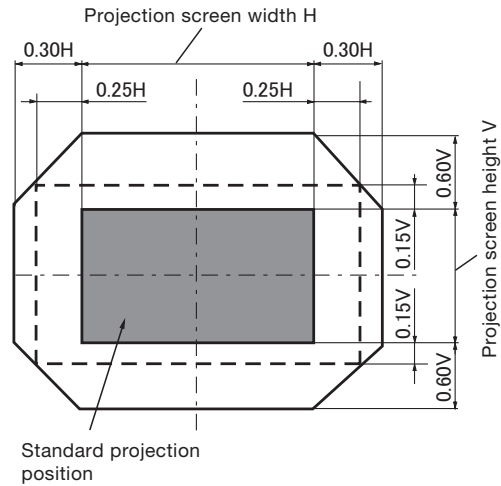Optical axis shift function allows to shift the position of a projected image as shown below.

• Floor mount / Ceiling mount

When the Standard zoom lens/ET-ELW20/ ET-ELT20/ET-ELT21/ET-ELS20* is mounted.

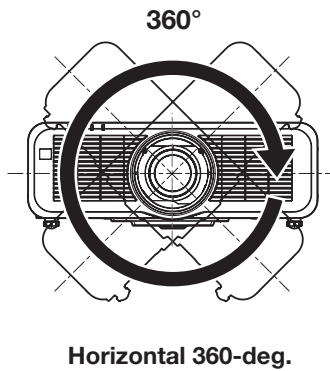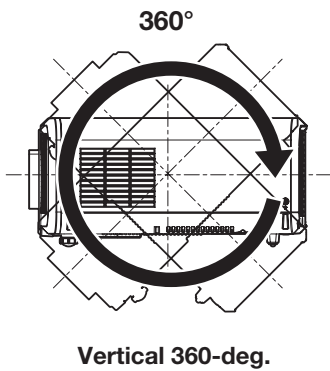* Available only in the US, Canada and Europe.

When the ET-ELW22 is mounted.

Standard projection position

Standard projection position

Installable angle

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

FULL 360-degree projection

Vertical 360-deg.

Horizontal 360-deg.

Tilting 360-deg. (V&H combination)

PT-**MW630/MW630L**

List of compatible signals

The following table specifies the video signals compatible with the projector.

This projector supports the signal with l in the compatible signal column.

- Symbols that indicate formats are as follows.
  - ––V: VIDEO
  - ––R: RGB
  - ––Y: YC$_B$C$_R$/YP$_B$P$_R$
  - ––H: HDMI (DIGITAL LINK)
- The compatible signals of the DIGITAL LINK input are the same as the compatible signals of the HDMI input.
- Input corresponding to each item in the plug and play column is as follows.
  - ––RGB: RGB 1/RGB 2 input
  - ––HDMI/DL: HDMI1 / HDMI2 input, DIGITAL LINK input

Compatible signal	Resolution (Dots)	Scanning freq. H (KHz)	Scanning freq. V (Hz)	Dot clock freq. (MHz)	Format	Plug and Play[1] RGB	Plug and Play[1] HDMI/DL
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	—	—
480/60i	720 x 480i	15.7	59.9	13.5	R/Y	—	—
576/50i	720 x 576i	15.6	50.0	13.5	R/Y	—	—
480/60i	720(1440)x 480i[2]	15.7	59.9	27.0	H	—	—
576/50i	720(1440)x 576i[2]	15.6	50.0	27.0	H	—	—
480/60p	720 x 480	31.5	59.9	27.0	R/Y/H	—	✓
576/50p	720 x 576	31.3	50.0	27.0	R/Y/H	—	✓
720/60p	1280 x 720	45.0	60.0	74.3	R/Y/H	—	✓
720/50p	1280 x 720	37.5	50.0	74.3	R/Y/H	—	✓
1080/60i	1920 x 1080i	33.8	60.0	74.3	R/Y/H	—	✓
1080/50i	1920 x 1080i	28.1	50.0	74.3	R/Y/H	—	✓
1080/24p	1920 x 1080	27.0	24.0	74.3	R/Y/H	—	✓
1080/24sF	1920 x 1080i	27.0	48.0	74.3	R/Y/H	—	—
1080/25p	1920 x 1080	28.1	25.0	74.3	R/Y/H	—	—
1080/30p	1920 x 1080	33.8	30.0	74.3	R/Y/H	—	—
1080/60p	1920 x 1080	67.5	60.0	148.5	R/Y/H	—	✓
1080/50p	1920 x 1080	56.3	50.0	148.5	R/Y/H	—	✓
640 x 400/70	640 x 400	31.5	70.1	25.2	R/H	—	—
640 x 400/85	640 x 400	37.9	85.1	31.5	R/H	—	—
640 x 480/60	640 x 480	31.5	59.9	25.2	R/H	✓	✓
640 x 480/67	640 x 480	35.0	66.7	30.2	R/H	—	—
640 x 480/73	640 x 480	37.9	72.8	31.5	R/H	✓	✓
640 x 480/75	640 x 480	37.5	75.0	31.5	R/H	✓	✓
640 x 480/85	640 x 480	43.3	85.0	36.0	R/H	—	—
800 x 600/56	800 x 600	35.2	56.3	36.0	R/H	✓	✓
800 x 600/60	800 x 600	37.9	60.3	40.0	R/H	✓	✓
800 x 600/72	800 x 600	48.1	72.2	50.0	R/H	✓	✓
800 x 600/75	800 x 600	46.9	75.0	49.5	R/H	✓	✓
800 x 600/85	800 x 600	53.7	85.1	56.3	R/H	—	—
832 x 624/75	832 x 624	49.7	74.6	57.3	R/H	✓	✓
1024 x 768/50	1024 x 768	39.6	50.0	51.9	R/H	—	—
1024 x 768/60	1024 x 768	48.4	60.0	65.0	R/H	✓	✓
1024 x 768/70	1024 x 768	56.5	70.1	75.0	R/H	✓	✓
1024 x 768/75	1024 x 768	60.0	75.0	78.8	R/H	✓	✓
1024 x 768/82	1024 x 768	65.5	81.6	86.0	R/H	—	—
1024 x 768/85	1024 x 768	68.7	85.0	94.5	R/H	—	—
1024 x 768/100	1024 x 768	81.4	100.0	113.3	R/H	—	—
1152 x 864/60	1152 x 864	53.7	60.0	81.6	R/H	—	—
1152 x 864/75	1152 x 864	67.5	75.0	108.0	R/H	—	—
1152 x 864/85	1152 x 864	77.1	85.0	119.7	R/H	—	—
1152 x 870/75	1152 x 870	68.7	75.1	100.0	R/H	✓	✓
1280 x 720/50	1280 x 720	37.1	49.8	60.5	R/H	—	—
1280 x 720/60	1280 x 720	44.8	59.9	74.5	R/H	—	—

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PT-**MW630/MW630L**

Compatible signal	Resolution (Dots)	Scanning freq. H (KHz)	Scanning freq. V (Hz)	Dot clock freq. (MHz)	Format	Plug and Play*¹ RGB	Plug and Play*¹ HDMI/DL
1280 x 768/60*³	1280 x 768	47.7	60.0	80.1	R/H	—	—
1280 x 768/60	1280 x 768	47.8	59.9	79.5	R/H	—	—
1280 x 768/75	1280 x 768	60.3	74.9	102.3	R/H	—	—
1280 x 768/85	1280 x 768	68.6	84.8	117.5	R/H	—	—
1280 x 800/50	1280 x 800	41.3	50.0	68.0	R/H	—	—
1280 x 800/60	1280 x 800	49.7	59.8	83.5	R/H	✓	✓
1280 x 800/75	1280 x 800	62.8	74.9	106.5	R/H	—	—
1280 x 800/85	1280 x 800	71.6	84.9	122.5	R/H	—	—
1280 x 960/60	1280 x 960	60.0	60.0	108.0	R/H	—	—
1280 x 1024/60	1280 x 1024	64.0	60.0	108.0	R/H	—	—
1280 x 1024/75	1280 x 1024	80.0	75.0	135.0	R/H	✓	✓
1280 x 1024/85	1280 x 1024	91.1	85.0	157.5	R/H	—	—
1366 x 768/50	1366 x 768	39.6	49.9	69.0	R/H	—	—
1366 x 768/60*³	1366 x 768	47.7	60.0	84.7	R/H	—	—
1366 x 768/60	1366 x 768	47.7	59.8	85.5	R/H	—	—
1400 x 1050/60*³	1400 x 1050	65.2	60.0	122.6	R/H	—	—
1400 x 1050/60	1400 x 1050	65.3	60.0	121.8	R/H	—	—
1400 x 1050/75	1400 x 1050	82.2	75.0	155.9	R/H	—	—
1440 x 900/50*³	1440 x 900	46.3	50.0	87.4	R/H	—	—
1440 x 900/60*³	1440 x 900	55.9	60.0	106.5	R/H	—	—
1440 x 900/60	1440 x 900	55.9	59.9	106.5	R/H	—	—
1600 x 900/50*³	1600 x 900	46.3	50.0	97.0	R/H	—	—
1600 x 900/60*³	1600 x 900	55.9	60.0	119.0	R/H	—	—
1600 x 1200/60	1600 x 1200	75.0	60.0	162.0	R/H	✓	✓
1680 x 1050/50	1680 x 1050	54.1	50.0	119.5	R/H	—	—
1680 x 1050/60*³	1680 x 1050	65.2	60.0	147.1	R/H	—	—
1680 x 1050/60	1680 x 1050	65.3	60.0	146.3	R/H	—	—
1920 x 1080/50	1920 x 1080	55.6	49.9	141.5	R/H	—	—
1920 x 1080/60*⁴	1920 x 1080	66.6	59.9	138.5	R/H	—	—
1920 x 1080/60*⁵	1920 x 1080	67.2	60.0	173.0	R	—	—
1920 x 1200/50	1920 x 1200	61.8	49.9	158.3	R/H	—	—
1920 x 1200/60*⁴	1920 x 1200	74.0	60.0	154.0	R/H	—	—
1920 x 1200/60*⁵	1920 x 1200	74.6	59.9	193.3	R	—	—

*1 Signal with l in the plug and play column is a signal described in the EDID (extended display identification data) of the projector. The signal that does not have l in the plug and play column can also be input if it is described in the format column. The resolution may not be selected in the computer even if the projector is compatible with the signal that does not have l in the plug and play column.
*2 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only
*3 If pertinent analog signal is input, it can be displayed when the setting suitable for the signal is made on [PICTURE] menu → [RGB SYSTEM]. It is no need to setting when input the digital signal.
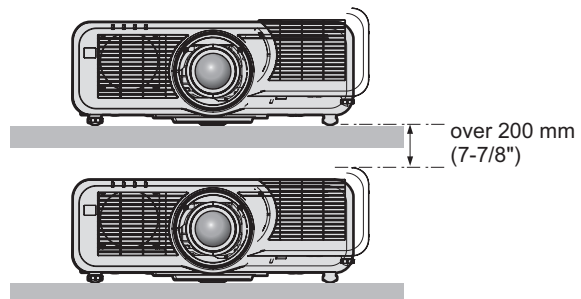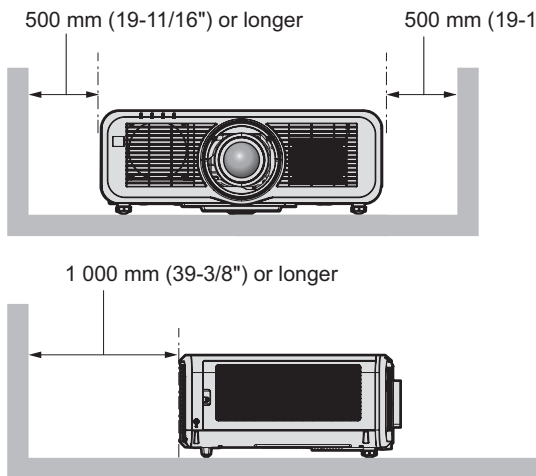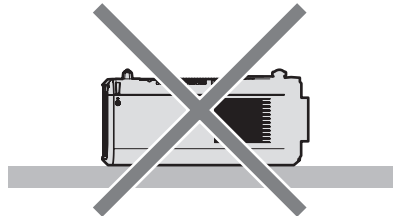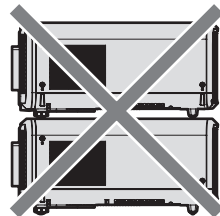*4 VESA CVT-RB (Reduced Blanking)-compliant
*5 Samples the pixels in the image processing circuit and displays the image.

NOTE:
• A signal with a different resolution is converted to the number of display dots. The number of display dots is as follows.
  1280 x 800
• The "i" at the end of the resolution indicates an interlaced signal.
• When interlaced signals are connected, flickering may occur on the projected image.
• DIGITAL LINK input compatible signal is the same as HDMI input compatible signal.
• Even the above signals exist, some image signals recorded in special method may not be displayed.

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Notes on projector placement and operation

1. Never place objects on top of the projector while it is operating.

2. Make sure there is the unobstructed space as shown below or more around the projector's exhaust openings. In addition to this space, also ensure that there is a sufficient work space for removing and installing filter and other parts.

3. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.

4. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.

500 mm (19-11/16") or longer   500 mm (19-11/16") or longer

1 000 mm (39-3/8") or longer

over 200 mm (7-7/8")

As of October 2017

SFL17M064Z

Panasonic