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SPEC FILE


**Product Number :** PT-**DZ8700**U

**Product Name :** 3-Chip DLP® Projector

3-Chip DLP® Projector

# PT-DZ8700U

## Specifications

**Main unit**

| | | |
|---|---|---|
| Power supply | | 120 V AC, 10 A, 60 Hz |
| Power consumption | | 970 W (1,000 VA) (0.2 W with standby mode set to ECO*1. 6 W with standby mode set to NORMAL. Both with fan stopped.) |
| DLP® chip | Panel size | 24.4 mm (0.96 inches) diagonal (16:10 aspect ratio) |
| | Display method | DLP® chip × 3 (R, G, B), DLP® projection system |
| | Pixels | 2,304,000 (1,920 × 1,200) × 3, total of 6,912,000 pixels |
| Lens | | Optional powered zoom/focus lenses |
| Lamp | | 355 W UHM lamps (× 2) (dual lamp system) |
| Screen size | | 70–600 inches (70–300 inches with the ET-D75LE5), 16:10 aspect ratio |
| Brightness*2 | | 10,600 lumens (dual lamp, high mode) |
| Center-to-corner uniformity*2 | | 90% |
| Contrast*2 | | 10,000:1 (full on/full off, in dynamic iris 3 mode) |
| Resolution | | 1,920 × 1,200 pixels (Input signals that exceed this resolution will be converted to 1,920 × 1,200 pixels.) |
| Scanning frequency | SDI | SD-SDI signal: SMPTE 259M compliant: 480i, 576i<br>Single-link HD-SDI signal: SMPTE 292M compliant:<br>720/50p, 720/60p, 1035/60i, 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p |
| | HDMI/DVI-D/RGB | Horizontal: 15–100 kHz, vertical: 24–120 Hz,<br>Dot clock: 162 MHz or lower |
| | $YP_BP_R$ ($YC_BC_R$) | 525i (480i): $f_H$ 15.75 kHz; $f_V$ 60 Hz,<br>625i (576i): $f_H$ 15.63 kHz; $f_V$ 50 Hz,<br>525p (480p): $f_H$ 31.50 kHz; $f_V$ 60 Hz,<br>625p (576p): $f_H$ 31.25 kHz; $f_V$ 50 Hz,<br>750 (720)/60p: $f_H$ 45.00 kHz; $f_V$ 60 Hz,<br>750 (720)/50p: $f_H$ 37.50 kHz; $f_V$ 50 Hz,<br>1035/60i: $f_H$ 33.75 kHz; $f_V$ 60 Hz,<br>1125 (1080)/60i: $f_H$ 33.75 kHz; $f_V$ 60 Hz,<br>1125 (1080)/50i: $f_H$ 28.13 kHz; $f_V$ 50 Hz,<br>1080/25p: $f_H$ 28.13 kHz; $f_V$ 25 Hz,<br>1080/24p: $f_H$ 27.00 kHz; $f_V$ 24 Hz<br>1080/24sF: $f_H$ 27.00 kHz; $f_V$ 48 Hz,<br>1080/30p: $f_H$ 33.75 kHz; $f_V$ 30 Hz<br>1080/60p: $f_H$ 67.50 kHz; $f_V$ 60 Hz,<br>1080/50p: $f_H$ 56.25 kHz; $f_V$ 50 Hz |
| | S-Video/Video | Horizontal: 15.75/15.63 kHz, vertical: 50/60 Hz,<br>(NTSC, NTSC4.43, PAL, PAL60, PAL-N, PAL-M, SECAM) |
| Optical axis shift | | ±55% (±44% with the ET-D75LE6) from center of screen, powered<br>±20% (±15% with the ET-D75LE6) from center of screen, powered |
| Keystone correction range | | Vertical: ±40° (±22° with the ET-D75LE5, ±28° with the ET-D75LE6)<br>When using only the KEYSTONE correction of the Geometric Adjustment function: Vertical ±40°, horizontal ±15°<br>(vertical ±22° and horizontal ±15° with the ET-D75LE5,<br>vertical ±28° and horizontal ±10° with the ET-D75LE5)<br>When using both the KEYSTONE and CURVED corrections of the Geometric Adjustment function: Vertical ±5°, horizontal ±5°<br>(vertical ±10° and horizontal ±10° with the ET-D75LE3,<br>vertical ±10° and horizontal ±15° with the ET-D75LE4/D75LE8) |
| Installation | | Ceiling/floor, front/rear |

| | | |
|---|---|---|
| Terminals*3 | SDI IN | BNC × 1,<br>SD-SDI signal (YCBCR 4:2:2 10-bit):<br>SMPTE 259M compliant: 480i, 576i<br>Single-link HD-SDI signal (YCBCR 4:2:2 10-bit):<br>SMPTE 292M compliant: 720/50p, 720/60p, 1035/60i, 1080/50i, 1080/60i, 1080/25p, 1080/24p, 1080/24sF, 1080/30p |
| | HDMI IN | HDMI 19-pin × 1, Deep Color, compatible with HDCP,<br>480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p, 1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p<br>(non-interlaced signals only),<br>VGA (640 × 480) – WUXGA*2 (1,920 × 1,200),<br>dot clock: 25–162 MHz<br>**NOTE: Compatible with non-interlaced signals only.** |
| | DVI-D IN | DVI-D 24-pin × 1, DVI 1.0 compliant, HDCP compatible,<br>for single link only<br>480p, 576p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/24p, 1080/24sF, 1080/25p, 1080/30p, 1080/60p, 1080/50p,<br>VGA (640 × 480) – WUXGA*2 (1,920 × 1,200),<br>dot clock: 25–162 MHz<br>**NOTE: Compatible with non-interlaced signals only.** |
| | RGB 1 IN | BNC × 5 |
| | RGB | R: 0.7 Vp-p, 75 ohms,<br>G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms,<br>B: 0.7 Vp-p, 75 ohms<br>HD/VD, SYNC: High impedance, TTL (positive/negative), 75 ohms |
| | YPBPR (YCBCR) | Y: 1.0 Vp-p (including sync signal), PB/PR (CB/CR): 0.7 Vp-p, 75 ohms<br>**NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.** |
| | RGB 2 IN | D-sub HD 15-pin (female) × 1 |
| | R, G, B | R: 0.7 Vp-p, 75 ohms,<br>G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms,<br>B: 0.7 Vp-p, 75 ohms<br>HD/VD, SYNC: High impedance, TTL (positive/negative), 75 ohms |
| | YPBPR (YCBCR) | Y: 1.0 Vp-p (including sync signal), PB/PR (CB/CR): 0.7 Vp-p, 75 ohms<br>**NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.** |
| | VIDEO IN | BNC × 1, 1.0 Vp-p, 75 ohms |
| | S-VIDEO IN | Mini DIN 4-pin × 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms |
| | SERIAL IN | D-sub 9-pin × 1 (RS-232C compliant) for external controller |
| | SERIAL OUT | D-sub 9-pin × 1 for link control |
| | REMOTE 1 IN | M3 jack × 1 for wired remote control |
| | REMOTE 1 OUT | M3 jack × 1 for link control |
| | REMOTE 2 IN | D-sub 9-pin × 1 for external control (parallel) |
| | LAN | RJ-45 × 1 for network connection, 100Base-TX/10Base-T, compliant with PJLink™ (class 1) |
| Power cord length | | 3.0 m (9 ft 10 in) |
| Cabinet materials | | Molded plastic |
| Dimensions (W × H × D): | | 530 mm × 200 mm*5 × 548.5 mm*6<br>(20-7/8″ × 7-7/8″ *5 × 21-19/32″ *6) (without lens) |
| Weight*7 | | Approx. 24 kg (52.9 lbs) (without lens) |
| Operating temperature | | 0°–45°C (32°–113°F)*8 |
| Operating humidity | | 10%–80% (no condensation) |

**Remote control unit**

| | |
|---|---|
| Power supply | 3 V DC (AA type battery × 2) |
| Operation range*9 | Approx. 30 m (98 ft 5 in) when operated from directly signal receptor |
| Dimensions (W × H × D) | 51 × 176 × 28 mm (2″ × 6-15/16″ × 1-3/32″) |
| Weight | Approx. 134 g (4.7 oz) (including batteries) |

**Supplied accessories**

Power cord with security lock (× 1)
Wireless/wired remote control unit (× 1)
Batteries for remote control (AA type × 2)
Safety wire rope (× 1)

**Optional accessories**

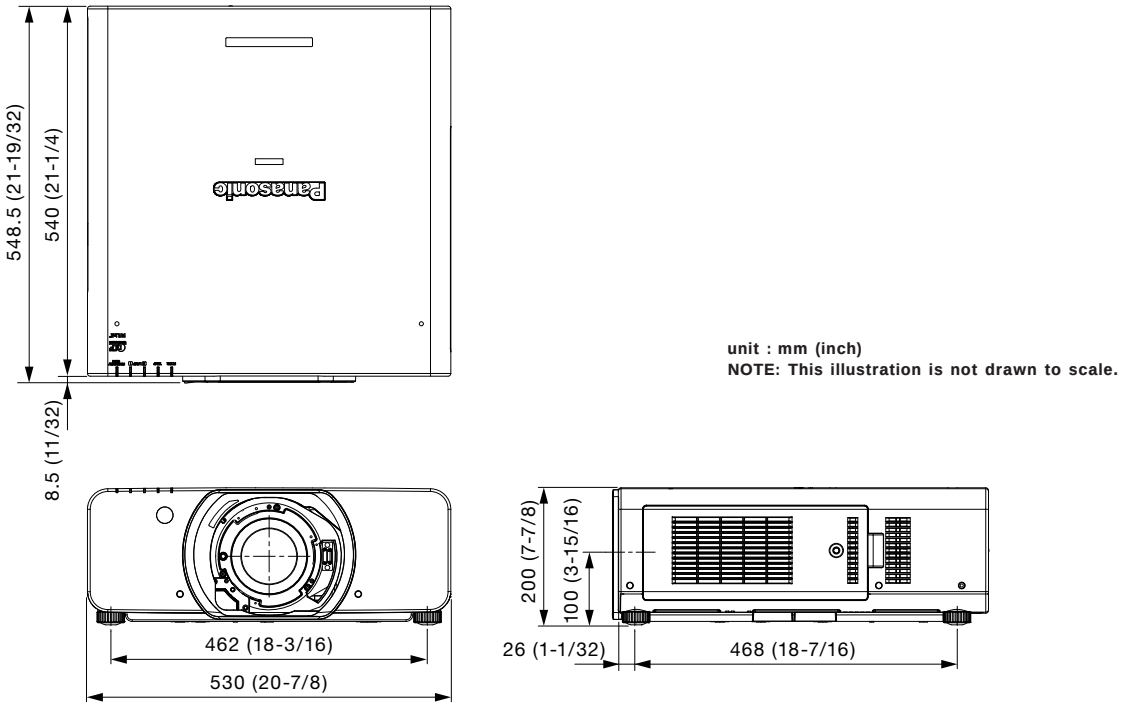
| | |
|---|---|
| Zoom lens (0.9–1.1:1) | ET-D75LE6 |
| Zoom lens (1.3–1.7:1) | ET-D75LE10 |
| Zoom lens (1.7–2.4:1) | ET-D75LE20 |
| Zoom lens (2.4–4.7:1) | ET-D75LE30 |
| Zoom lens (4.6–7.4:1) | ET-D75LE4 |
| Zoom lens (7.3–13.8:1) | ET-D75LE8 |
| Fixed-focus lens (0.7:1) | ET-D75LE5 |
| Lens motor cover | ET-D75MC1 |
| High-ceiling mount bracket | ET-PKD310H |
| Low-ceiling mount bracket | ET-PKD310S |
| Attachment for ceiling mount bracket | ET-PAD310 |
| Frame | ET-PFD310 |
| Smoke cut filter | ET-SFD310 |
| Replacement lamp (one bulb) | ET-LAD310 |
| Replacement lamp (a set of two bulbs) | ET-LAD310W |
| Replacement filter unit | ET-ACF310 |

**Weights and dimensions shown are approximate. Specifications subject to change without notice.**
***1 When the standby mode is set to ECO, LAN-based network functions such as the standby ON function will not operate.**
***2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.**
***3 The SYNC/HD and VD inputs do not accept the tri-level sync signal.**
***4 WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).**
***5 With legs at shortest position.**
***6 Excluding the optional lens.**
***7 Average value (excluding the optional lens). May differ depending on models.**
***8 The operating temperature range is 0°C (32°F) to 40°C (104°F) when used in High-Altitude mode (1,400 m (4,593 ft) to 2,700 m (8,858 ft)).**
***9 Operation range differs depending on environments.**

3-Chip DLP® Projector

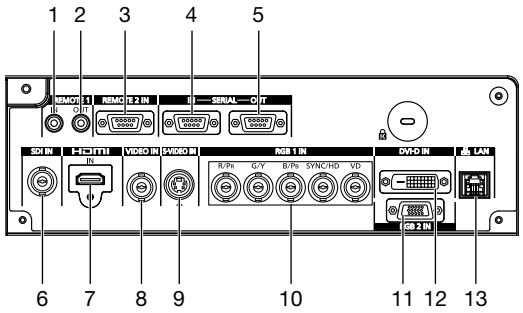
# PT-**DZ8700**U

## Dimensions




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

## Terminals

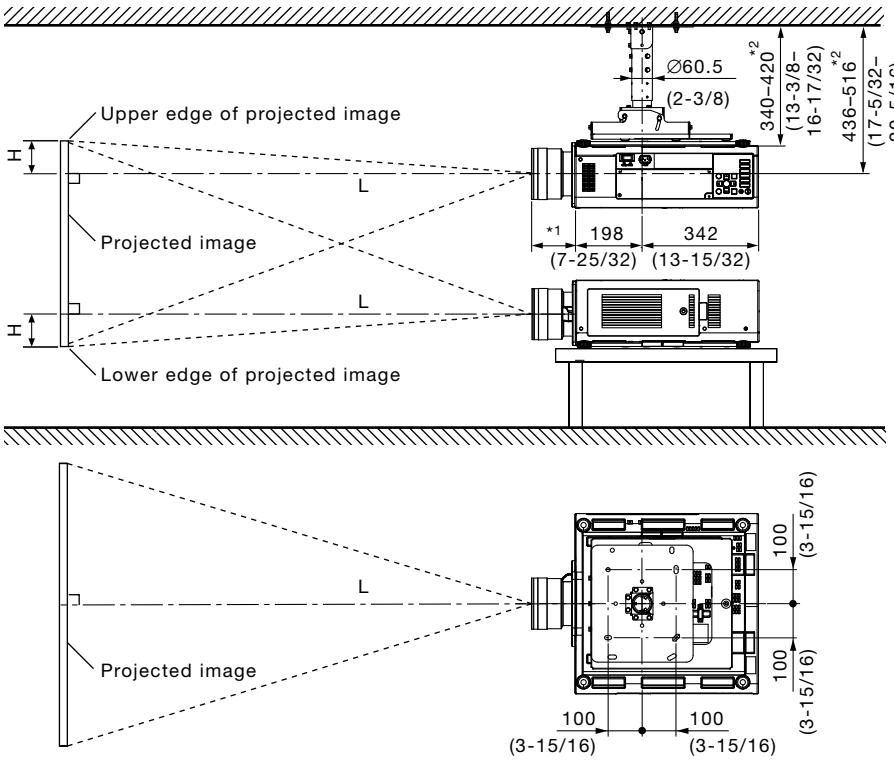



| | | | |
|---|---|---|---|
| 1 | Remote 1 input | 8 | Video input |
| 2 | Remote 1 output | 9 | S-Video input |
| 3 | Remote 2 input | 10 | RGB 1 input |
| 4 | Serial input | 11 | RGB 2 Input |
| 5 | Serial output | 12 | DVI-D input |
| 6 | SDI input | 13 | LAN connector |
| 7 | HDMI input | | |

3-Chip DLP® Projector

# PT-**DZ8700**U

**Standard setting-up position** **(when installed using the ET-PKD310H)**







***1 When the lens protrudes to the maximum.**
**212 mm (8-11/32″) with the ET-D75LE6**
**125 mm (4-29/32″) with the ET-D75LE10**
**114 mm (4-1/2″) with the ET-D75LE1**
**121 mm (4-3/4″) with the ET-D75LE20**
**99 mm (3-29/32″) with the ET-D75LE2**
**121 mm (4-3/4″) with the ET-D75LE30**
**102 mm (4-1/32″) with the ET-D75LE3**
**126 mm (4-31/32″) with the ET-D75LE4**
**254 mm (10″) with the ET-D75LE8**
**202 mm (7-15/16″) with the ET-D75LE5**

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

**unit : mm (inch)**

**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 that is included with the projector between the mounting bracket and the ceiling.

## Projection distance for 16:10 aspect ratio screen

(ET-D75LE6/D75LE10/D75LE20/D75LE30/D75LE4/D75LE8/D75LE5)

**Unit: millimeters**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | | | | | | | Height from the edge of screen to center of lens (H) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zoom | | | | | | | | | | | | Fixed-focus | Zoom lenses | |
| | ET-D75LE6 Zoom lens | | ET-D75LE10 Zoom lens | | ET-D75LE20 Zoom lens | | ET-D75LE30 Zoom lens | | ET-D75LE4 Zoom lens | | ET-D75LE8 Zoom lens | | ET-D75LE5 Fixed-focus lens | Except ET-D75LE6 | ET-D75LE6 | Fixed-focus lens* |
| | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | | | | |
| 70 | 1,353 | 1,615 | 1,903 | 2,462 | 2,461 | 3,581 | 3,558 | 6,943 | 6,906 | 11,064 | 10,780 | 20,561 | 992 | -47 – 989 | 57 – 886 | 471 |
| 80 | 1,555 | 1,857 | 2,187 | 2,829 | 2,825 | 4,109 | 4,082 | 7,960 | 7,909 | 12,659 | 12,375 | 23,550 | 1,146 | -54 – 1,131 | 65 – 1,012 | 538 |
| 90 | 1,756 | 2,098 | 2,471 | 3,197 | 3,188 | 4,638 | 4,607 | 8,977 | 8,912 | 14,254 | 13,970 | 26,539 | 1,300 | -61 – 1,272 | 73 – 1,139 | 606 |
| 100 | 1,957 | 2,339 | 2,755 | 3,564 | 3,552 | 5,166 | 5,131 | 9,994 | 9,915 | 15,849 | 15,565 | 29,527 | 1,453 | -67 – 1,414 | 81 – 1,265 | 673 |
| 120 | 2,360 | 2,822 | 3,324 | 4,298 | 4,279 | 6,222 | 6,180 | 12,028 | 11,921 | 19,039 | 18,756 | 35,505 | 1,761 | -81 – 1,696 | 97 – 1,519 | 808 |
| 150 | 2,964 | 3,546 | 4,176 | 5,400 | 5,369 | 7,807 | 7,753 | 15,079 | 14,930 | 23,824 | 23,541 | 44,471 | 2,222 | -101 – 2,120 | 121 – 1,898 | 1,010 |
| 200 | 3,971 | 4,752 | 5,597 | 7,236 | 7,187 | 10,448 | 10,375 | 20,165 | 19,945 | 31,799 | 31,517 | 59,414 | 2,991 | -135 – 2,827 | 162 – 2,531 | 1,346 |
| 250 | 4,978 | 5,959 | 7,017 | 9,072 | 9,005 | 13,089 | 12,997 | 25,250 | 24,960 | 39,774 | 39,493 | 74,358 | 3,759 | -168 – 3,534 | 202 – 3,164 | 1,683 |
| 300 | 5,985 | 7,165 | 8,438 | 10,908 | 10,822 | 15,730 | 15,620 | 30,335 | 29,975 | 47,749 | 47,468 | 89,301 | 4,528 | -202 – 4,241 | 242 – 3,796 | 2,019 |
| 400 | 7,999 | 9,578 | 11,279 | 14,580 | 14,457 | 21,012 | 20,864 | 40,506 | 40,006 | 63,699 | 63,420 | 119,188 | – | -269 – 5,654 | 323 – 5,062 | – |
| 500 | 10,013 | 11,991 | 14,120 | 18,253 | 18,092 | 26,294 | 26,108 | 50,676 | 50,036 | 79,649 | 79,371 | 149,075 | – | -337 – 7,068 | 404 – 6,327 | – |
| 600 | 12,027 | 14,404 | 16,961 | 21,925 | 21,728 | 31,575 | 31,352 | 60,847 | 60,067 | 95,599 | 95,323 | 178,962 | – | -404 – 8,481 | 485 – 7,593 | – |

**Unit: feet**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | | | | | | | Height from the edge of screen to center of lens (H) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zoom | | | | | | | | | | | | Fixed-focus | Zoom lenses | |
| | ET-D75LE6 Zoom lens | | ET-D75LE10 Zoom lens | | ET-D75LE20 Zoom lens | | ET-D75LE30 Zoom lens | | ET-D75LE4 Zoom lens | | ET-D75LE8 Zoom lens | | ET-D75LE5 Fixed-focus lens | Except ET-D75LE6 | ET-D75LE6 | Fixed-focus lens* |
| | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | | | | |
| 70 | 4.5 | 5.3 | 6.3 | 8.1 | 8.1 | 11.8 | 11.7 | 22.8 | 22.7 | 36.3 | 35.4 | 67.5 | 3.3 | -0.2 – 3.3 | 0.2 – 2.9 | 1.6 |
| 80 | 5.2 | 6.1 | 7.2 | 9.3 | 9.3 | 13.5 | 13.4 | 26.2 | 26.0 | 41.6 | 40.7 | 77.3 | 3.8 | -0.2 – 3.8 | 0.3 – 3.4 | 1.8 |
| 90 | 5.8 | 6.9 | 8.2 | 10.5 | 10.5 | 15.3 | 15.2 | 29.5 | 29.3 | 46.8 | 45.9 | 87.1 | 4.3 | -0.3 – 4.2 | 0.3 – 3.8 | 2.0 |
| 100 | 6.5 | 7.7 | 9.1 | 11.7 | 11.7 | 17.0 | 16.9 | 32.8 | 32.6 | 52.0 | 51.1 | 96.9 | 4.8 | -0.3 – 4.7 | 0.3 – 4.2 | 2.3 |
| 120 | 7.8 | 9.3 | 11.0 | 14.2 | 14.1 | 20.5 | 20.3 | 39.5 | 39.2 | 62.5 | 61.6 | 116.5 | 5.8 | -0.3 – 5.6 | 0.4 – 5.0 | 2.7 |
| 150 | 9.8 | 11.7 | 13.8 | 17.8 | 17.7 | 25.7 | 25.5 | 49.5 | 49.0 | 78.2 | 77.3 | 146.0 | 7.3 | -0.4 – 7.0 | 0.4 – 6.3 | 3.4 |
| 200 | 13.1 | 15.6 | 18.4 | 23.8 | 23.6 | 34.3 | 34.1 | 66.2 | 65.5 | 104.4 | 103.5 | 195.0 | 9.9 | -0.5 – 9.3 | 0.6 – 8.4 | 4.5 |
| 250 | 16.4 | 19.6 | 23.1 | 29.8 | 29.6 | 43.0 | 42.7 | 82.9 | 81.9 | 130.5 | 129.6 | 244.0 | 12.4 | -0.6 – 11.6 | 0.7 – 10.4 | 5.6 |
| 300 | 19.7 | 23.6 | 27.7 | 35.8 | 35.6 | 51.7 | 51.3 | 99.6 | 98.4 | 156.7 | 155.8 | 293.0 | 14.9 | -0.7 – 14.0 | 0.8 – 12.5 | 6.7 |
| 400 | 26.3 | 31.5 | 37.1 | 47.9 | 47.5 | 69.0 | 68.5 | 132.9 | 131.3 | 209.0 | 208.1 | 391.1 | – | -0.9 – 18.6 | 1.1 – 16.7 | – |
| 500 | 32.9 | 39.4 | 46.4 | 59.9 | 59.4 | 86.3 | 85.7 | 166.3 | 164.2 | 261.4 | 260.5 | 489.1 | – | -1.2 – 23.2 | 1.4 – 20.8 | – |
| 600 | 39.5 | 47.3 | 55.7 | 72.0 | 71.3 | 103.6 | 102.9 | 199.7 | 197.1 | 313.7 | 312.8 | 587.2 | – | -1.4 – 27.9 | 1.6 – 25.0 | – |

- **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.**
- **When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.**

**NOTE: When the fixed-focus lens is mounted, the optical lens shift function cannot be used.**

## Projection distance for 16:10 aspect ratio screen

(ET-D75LE1/D75LE2/D75LE3)

**Unit: millimeters**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | Height from the edge of screen to center of lens (H) |
|---|---|---|---|---|---|---|---|
| | ET-D75LE1 Zoom lens | | ET-D75LE2 Zoom lens | | ET-D75LE3 Zoom lens | | |
| | min. | max. | min. | max. | min. | max. | |
| 70 | 2,013 | 2,691 | 2,723 | 4,098 | 4,108 | 6,900 | -47 – 989 |
| 80 | 2,312 | 3,090 | 3,124 | 4,698 | 4,709 | 7,903 | -54 – 1,131 |
| 90 | 2,610 | 3,488 | 3,524 | 5,299 | 5,309 | 8,906 | -61 – 1,272 |
| 100 | 2,908 | 3,887 | 3,924 | 5,899 | 5,910 | 9,909 | -67 – 1,414 |
| 120 | 3,505 | 4,685 | 4,725 | 7,101 | 7,111 | 11,915 | -81 – 1,696 |
| 150 | 4,401 | 5,881 | 5,926 | 8,902 | 8,913 | 14,924 | -101 – 2,120 |
| 200 | 5,893 | 7,875 | 7,928 | 11,905 | 11,916 | 19,939 | -135 – 2,827 |
| 250 | 7,385 | 9,868 | 9,930 | 14,908 | 14,919 | 24,954 | -168 – 3,534 |
| 300 | 8,877 | 11,862 | 11,932 | 17,911 | 17,922 | 29,970 | -202 – 4,241 |
| 400 | 11,862 | 15,850 | 15,936 | 23,917 | 23,928 | 40,000 | -269 – 5,654 |
| 500 | 14,846 | 19,837 | 19,940 | 29,923 | 29,933 | 50,030 | -337 – 7,068 |
| 600 | 17,831 | 23,825 | 23,944 | 35,929 | 35,939 | 60,061 | -404 – 8,481 |

**Unit: feet**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | Height from the edge of screen to center of lens (H) |
|---|---|---|---|---|---|---|---|
| | ET-D75LE1 Zoom lens | | ET-D75LE2 Zoom lens | | ET-D75LE3 Zoom lens | | |
| | min. | max. | min. | max. | min. | max. | |
| 70 | 6.7 | 8.9 | 9.0 | 13.5 | 13.5 | 22.7 | -0.2 – 3.3 |
| 80 | 7.6 | 10.2 | 10.3 | 15.5 | 15.5 | 26.0 | -0.2 – 3.8 |
| 90 | 8.6 | 11.5 | 11.6 | 17.4 | 17.5 | 29.3 | -0.3 – 4.2 |
| 100 | 9.6 | 12.8 | 12.9 | 19.4 | 19.4 | 32.6 | -0.3 – 4.7 |
| 120 | 11.5 | 15.4 | 15.6 | 23.3 | 23.4 | 39.1 | -0.3 – 5.6 |
| 150 | 14.5 | 19.3 | 19.5 | 29.3 | 29.3 | 49.0 | -0.4 – 7.0 |
| 200 | 19.4 | 25.9 | 26.1 | 39.1 | 39.1 | 65.5 | -0.5 – 9.3 |
| 250 | 24.3 | 32.4 | 32.6 | 49.0 | 49.0 | 81.9 | -0.6 – 11.6 |
| 300 | 29.2 | 39.0 | 39.2 | 58.8 | 58.8 | 98.4 | -0.7 – 14.0 |
| 400 | 39.0 | 52.1 | 52.3 | 78.5 | 78.6 | 131.3 | -0.9 – 18.6 |
| 500 | 48.8 | 65.1 | 65.5 | 98.2 | 98.3 | 164.2 | -1.2 – 23.2 |
| 600 | 58.6 | 78.2 | 78.6 | 117.9 | 118.0 | 197.1 | -1.4 – 27.9 |

- **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.**
- **When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.**

**NOTE: When the fixed-focus lens is mounted, the optical lens shift function cannot be used.**

## Projection distance for 16:9 aspect ratio screen

(ET-D75LE6/D75LE10/D75LE20/D75LE30/D75LE4/D75LE8/D75LE5)

**Unit: millimeters**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | | | | | | | Height from the edge of screen to center of lens (H) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zoom | | | | | | | | | | | | Fixed-focus | Zoom lenses | |
| | ET-D75LE6 Zoom lens | | ET-D75LE10 Zoom lens | | ET-D75LE20 Zoom lens | | ET-D75LE30 Zoom lens | | ET-D75LE4 Zoom lens | | ET-D75LE8 Zoom lens | | ET-D75LE5 Fixed-focus lens | Except ET-D75LE6 | ET-D75LE6 | Fixed-focus lens* |
| | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | | | | |
| 70 | 1,392 | 1,662 | 1,958 | 2,534 | 2,532 | 3,684 | 3,660 | 7,141 | 7,101 | 11,374 | 11,090 | 21,143 | 1,022 | -87 – 959 | 0 – 872 | 436 |
| 80 | 1,599 | 1,910 | 2,250 | 2,911 | 2,906 | 4,227 | 4,199 | 8,186 | 8,132 | 13,013 | 12,730 | 24,215 | 1,180 | -100 – 1,096 | 0 – 996 | 498 |
| 90 | 1,806 | 2,158 | 2,542 | 3,288 | 3,279 | 4,770 | 4,738 | 9,231 | 9,163 | 14,653 | 14,369 | 27,286 | 1,338 | -112 – 1,233 | 0 – 1,121 | 560 |
| 100 | 2,013 | 2,406 | 2,834 | 3,666 | 3,653 | 5,313 | 5,277 | 10,277 | 10,194 | 16,292 | 16,009 | 30,358 | 1,496 | -125 – 1,370 | 0 – 1,245 | 623 |
| 120 | 2,427 | 2,902 | 3,418 | 4,421 | 4,400 | 6,398 | 6,355 | 12,367 | 12,255 | 19,571 | 19,288 | 36,502 | 1,812 | -149 – 1,644 | 0 – 1,494 | 747 |
| 150 | 3,048 | 3,646 | 4,294 | 5,553 | 5,521 | 8,027 | 7,972 | 15,503 | 15,348 | 24,489 | 24,206 | 45,717 | 2,286 | -187 – 2,055 | 0 – 1,868 | 934 |
| 200 | 4,083 | 4,886 | 5,755 | 7,440 | 7,389 | 10,741 | 10,667 | 20,730 | 20,503 | 32,686 | 32,404 | 61,076 | 3,076 | -249 – 2,740 | 0 – 2,491 | 1,245 |
| 250 | 5,118 | 6,126 | 7,215 | 9,327 | 9,257 | 13,456 | 13,362 | 25,957 | 25,657 | 40,882 | 40,601 | 76,435 | 3,866 | -311 – 3,424 | 0 – 3,113 | 1,556 |
| 300 | 6,153 | 7,366 | 8,675 | 11,214 | 11,125 | 16,170 | 16,057 | 31,183 | 30,812 | 49,079 | 48,799 | 91,794 | 4,656 | -374 – 4,109 | 0 – 3,736 | 1,868 |
| 400 | 8,223 | 9,846 | 11,595 | 14,989 | 14,862 | 21,599 | 21,447 | 41,637 | 41,121 | 65,472 | 65,194 | 122,512 | – | -498 – 5,479 | 0 – 4,981 | – |
| 500 | 10,293 | 12,326 | 14,515 | 18,763 | 18,598 | 27,028 | 26,837 | 52,090 | 51,431 | 81,866 | 81,589 | 153,230 | – | -623 – 6,849 | 0 – 6,226 | – |
| 600 | 12,363 | 14,806 | 17,435 | 22,537 | 22,334 | 32,457 | 32,227 | 62,543 | 61,740 | 98,259 | 97,984 | 183,948 | – | -747 – 8,219 | 0 – 7,472 | – |

**Unit: feet**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | | | | | | | Height from the edge of screen to center of lens (H) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zoom | | | | | | | | | | | | Fixed-focus | Zoom lenses | |
| | ET-D75LE6 Zoom lens | | ET-D75LE10 Zoom lens | | ET-D75LE20 Zoom lens | | ET-D75LE30 Zoom lens | | ET-D75LE4 Zoom lens | | ET-D75LE8 Zoom lens | | ET-D75LE5 Fixed-focus lens | Except ET-D75LE6 | ET-D75LE6 | Fixed-focus lens* |
| | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | | | | |
| 70 | 4.6 | 5.5 | 6.5 | 8.4 | 8.4 | 12.1 | 12.1 | 23.5 | 23.3 | 37.4 | 36.4 | 69.4 | 3.4 | -0.3 – 3.2 | 0.0 – 2.9 | 1.4 |
| 80 | 5.3 | 6.3 | 7.4 | 9.6 | 9.6 | 13.9 | 13.8 | 26.9 | 26.7 | 42.7 | 41.8 | 79.5 | 3.9 | -0.4 – 3.6 | 0.0 – 3.3 | 1.7 |
| 90 | 6.0 | 7.1 | 8.4 | 10.8 | 10.8 | 15.7 | 15.6 | 30.3 | 30.1 | 48.1 | 47.2 | 89.6 | 4.4 | -0.4 – 4.1 | 0.0 – 3.7 | 1.9 |
| 100 | 6.7 | 7.9 | 9.3 | 12.1 | 12.0 | 17.5 | 17.4 | 33.8 | 33.5 | 53.5 | 52.6 | 99.6 | 5.0 | -0.5 – 4.5 | 0.0 – 4.1 | 2.1 |
| 120 | 8.0 | 9.6 | 11.3 | 14.6 | 14.5 | 21.0 | 20.9 | 40.6 | 40.3 | 64.3 | 63.3 | 119.8 | 6.0 | -0.5 – 5.4 | 0.0 – 5.0 | 2.5 |
| 150 | 10.0 | 12.0 | 14.1 | 18.3 | 18.2 | 26.4 | 26.2 | 50.9 | 50.4 | 80.4 | 79.5 | 150.0 | 7.5 | -0.7 – 6.8 | 0.0 – 6.2 | 3.1 |
| 200 | 13.4 | 16.1 | 18.9 | 24.5 | 24.3 | 35.3 | 35.0 | 68.1 | 67.3 | 107.3 | 106.4 | 200.4 | 10.1 | -0.9 – 9.0 | 0.0 – 8.2 | 4.1 |
| 250 | 16.8 | 20.1 | 23.7 | 30.7 | 30.4 | 44.2 | 43.9 | 85.2 | 84.2 | 134.2 | 133.3 | 250.8 | 12.7 | -1.1 – 11.3 | 0.0 – 10.3 | 5.2 |
| 300 | 20.2 | 24.2 | 28.5 | 36.8 | 36.5 | 53.1 | 52.7 | 102.4 | 101.1 | 161.1 | 160.2 | 301.2 | 15.3 | -1.3 – 13.5 | 0.0 – 12.3 | 6.2 |
| 400 | 27.0 | 32.4 | 38.1 | 49.2 | 48.8 | 70.9 | 70.4 | 136.7 | 135.0 | 214.9 | 213.9 | 402.0 | – | -1.7 – 18.0 | 0.0 – 16.4 | – |
| 500 | 33.8 | 40.5 | 47.7 | 61.6 | 61.1 | 88.7 | 88.1 | 170.9 | 168.8 | 268.6 | 267.7 | 502.8 | – | -2.1 – 22.5 | 0.0 – 20.5 | – |
| 600 | 40.6 | 48.6 | 57.3 | 74.0 | 73.3 | 106.5 | 105.8 | 205.2 | 202.6 | 322.4 | 321.5 | 603.6 | – | -2.5 – 27.0 | 0.0 – 24.6 | – |

- **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.**
- **When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.**

**NOTE: When the fixed-focus lens is mounted, the optical lens shift function cannot be used.**

## Projection distance for 16:9 aspect ratio screen

(ET-D75LE1/D75LE2/D75LE3)

**Unit: millimeters**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | Height from the edge of screen to center of lens (H) |
|---|---|---|---|---|---|---|---|
| | ET-D75LE1 Zoom lens | | ET-D75LE2 Zoom lens | | ET-D75LE3 Zoom lens | | |
| | min. | max. | min. | max. | min. | max. | |
| 70 | 2,071 | 2,768 | 2,801 | 4,215 | 4,225 | 7,095 | -87 – 959 |
| 80 | 2,378 | 3,178 | 3,213 | 4,832 | 4,842 | 8,126 | -100 – 1,096 |
| 90 | 2,685 | 3,588 | 3,624 | 5,449 | 5,460 | 9,157 | -112 – 1,233 |
| 100 | 2,991 | 3,998 | 4,036 | 6,066 | 6,077 | 10,188 | -125 – 1,370 |
| 120 | 3,605 | 4,818 | 4,859 | 7,301 | 7,312 | 12,250 | -149 – 1,644 |
| 150 | 4,525 | 6,047 | 6,093 | 9,153 | 9,163 | 15,342 | -187 – 2,055 |
| 200 | 6,059 | 8,096 | 8,151 | 12,239 | 12,250 | 20,497 | -249 – 2,740 |
| 250 | 7,593 | 10,145 | 10,209 | 15,326 | 15,336 | 25,652 | -311 – 3,424 |
| 300 | 9,126 | 12,195 | 12,266 | 18,412 | 18,423 | 30,806 | -374 – 4,109 |
| 400 | 12,194 | 16,293 | 16,381 | 24,585 | 24,596 | 41,116 | -498 – 5,479 |
| 500 | 15,261 | 20,391 | 20,497 | 30,758 | 30,768 | 51,425 | -623 – 6,849 |
| 600 | 18,329 | 24,490 | 24,612 | 36,931 | 36,941 | 61,734 | -747 – 8,219 |

**Unit: feet**

| Screen size (inch, diagonal) | Distance to screen (L) | | | | | | Height from the edge of screen to center of lens (H) |
|---|---|---|---|---|---|---|---|
| | ET-D75LE1 Zoom lens | | ET-D75LE2 Zoom lens | | ET-D75LE3 Zoom lens | | |
| | min. | max. | min. | max. | min. | max. | |
| 70 | 6.8 | 9.1 | 9.2 | 13.9 | 13.9 | 23.3 | -0.3 – 3.2 |
| 80 | 7.9 | 10.5 | 10.6 | 15.9 | 15.9 | 26.7 | -0.4 – 3.6 |
| 90 | 8.9 | 11.8 | 11.9 | 17.9 | 18.0 | 30.1 | -0.4 – 4.1 |
| 100 | 9.9 | 13.2 | 13.3 | 20.0 | 20.0 | 33.5 | -0.5 – 4.5 |
| 120 | 11.9 | 15.9 | 16.0 | 24.0 | 24.0 | 40.2 | -0.5 – 5.4 |
| 150 | 14.9 | 19.9 | 20.0 | 30.1 | 30.1 | 50.4 | -0.7 – 6.8 |
| 200 | 19.9 | 26.6 | 26.8 | 40.2 | 40.2 | 67.3 | -0.9 – 9.0 |
| 250 | 25.0 | 33.3 | 33.5 | 50.3 | 50.4 | 84.2 | -1.1 – 11.3 |
| 300 | 30.0 | 40.1 | 40.3 | 60.5 | 60.5 | 101.1 | -1.3 – 13.5 |
| 400 | 40.1 | 53.5 | 53.8 | 80.7 | 80.7 | 134.9 | -1.7 – 18.0 |
| 500 | 50.1 | 66.9 | 67.3 | 101.0 | 101.0 | 168.8 | -2.1 – 22.5 |
| 600 | 60.2 | 80.4 | 80.8 | 121.2 | 121.2 | 202.6 | -2.5 – 27.0 |

- **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.**
- **When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.**

**NOTE: When the fixed-focus lens is mounted, the optical lens shift function cannot be used.**

### Calculation of the projection distance

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

#### Aspect ratio 16:10

**Zoom lenses**

| | | |
|---|---|---|
| ET-D75LE6 | minimum | L (mm) = (diagonal screen size in inches) × 20.1 – 56.6 |
| | maximum | L (mm) = (diagonal screen size in inches) × 24.1 – 73.6 |
| ET-D75LE10 | minimum | L (mm) = (diagonal screen size in inches) × 28.4 – 85.7 |
| | maximum | L (mm) = (diagonal screen size in inches) × 36.7 – 108.5 |
| ET-D75LE1 | minimum | L (mm) = (diagonal screen size in inches) × 29.8 – 76.0 |
| | maximum | L (mm) = (diagonal screen size in inches) × 39.9 – 100.4 |
| ET-D75LE20 | minimum | L (mm) = (diagonal screen size in inches) × 36.4 – 83.2 |
| | maximum | L (mm) = (diagonal screen size in inches) × 52.8 – 116.2 |
| ET-D75LE2 | minimum | L (mm) = (diagonal screen size in inches) × 40.0 – 79.5 |
| | maximum | L (mm) = (diagonal screen size in inches) × 60.1 – 106.4 |
| ET-D75LE30 | minimum | L (mm) = (diagonal screen size in inches) × 52.4 – 113.1 |
| | maximum | L (mm) = (diagonal screen size in inches) × 101.7 – 176.5 |
| ET-D75LE3 | minimum | L (mm) = (diagonal screen size in inches) × 60.1 – 95.8 |
| | maximum | L (mm) = (diagonal screen size in inches) × 100.3 – 121.6 |
| ET-D75LE4 | minimum | L (mm) = (diagonal screen size in inches) × 100.3 – 115.8 |
| | maximum | L (mm) = (diagonal screen size in inches) × 159.5 – 101.3 |
| ET-D75LE8 | minimum | L (mm) = (diagonal screen size in inches) × 159.5 – 386.2 |
| | maximum | L (mm) = (diagonal screen size in inches) × 298.9 – 359.8 |

**Fixed-focus lens**

| | | |
|---|---|---|
| ET-D75LE5 | | L (mm) = (diagonal screen size in inches) × 15.4 – 83.5 |

#### Aspect ratio 16:9

**Zoom lenses**

| | | |
|---|---|---|
| ET-D75LE6 | minimum | L (mm) = (diagonal screen size in inches) × 20.7 – 56.6 |
| | maximum | L (mm) = (diagonal screen size in inches) × 24.8 – 73.6 |
| ET-D75LE10 | minimum | L (mm) = (diagonal screen size in inches) × 29.2 – 85.7 |
| | maximum | L (mm) = (diagonal screen size in inches) × 37.7 – 108.5 |
| ET-D75LE1 | minimum | L (mm) = (diagonal screen size in inches) × 30.7 – 76.0 |
| | maximum | L (mm) = (diagonal screen size in inches) × 41.0 – 100.4 |
| ET-D75LE20 | minimum | L (mm) = (diagonal screen size in inches) × 37.4 – 83.2 |
| | maximum | L (mm) = (diagonal screen size in inches) × 54.3 – 116.2 |
| ET-D75LE2 | minimum | L (mm) = (diagonal screen size in inches) × 41.2 – 79.5 |
| | maximum | L (mm) = (diagonal screen size in inches) × 61.7 – 106.4 |
| ET-D75LE30 | minimum | L (mm) = (diagonal screen size in inches) × 53.9 – 113.1 |
| | maximum | L (mm) = (diagonal screen size in inches) × 104.5 – 176.5 |
| ET-D75LE3 | minimum | L (mm) = (diagonal screen size in inches) × 61.7 – 95.8 |
| | maximum | L (mm) = (diagonal screen size in inches) × 103.1 – 121.6 |
| ET-D75LE4 | minimum | L (mm) = (diagonal screen size in inches) × 103.1 – 115.8 |
| | maximum | L (mm) = (diagonal screen size in inches) × 163.9 – 101.3 |
| ET-D75LE8 | minimum | L (mm) = (diagonal screen size in inches) × 164.0 – 386.2 |
| | maximum | L (mm) = (diagonal screen size in inches) × 307.2 – 359.8 |

**Fixed-focus lens**

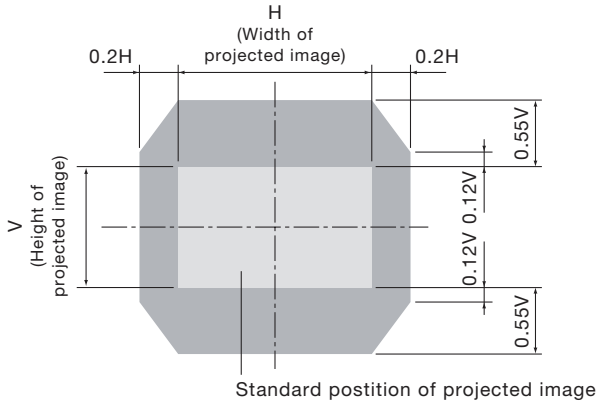
| | | |
|---|---|---|
| ET-D75LE5 | | L (mm) = (diagonal screen size in inches) × 15.8 – 83.5 |

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

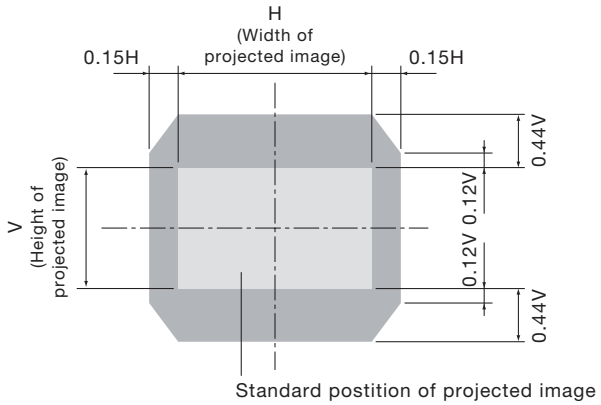
### Shift range

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

**• When the lens except the ET-D75LE6 is mounted**




**• When the ET-D75LE6 is mounted**

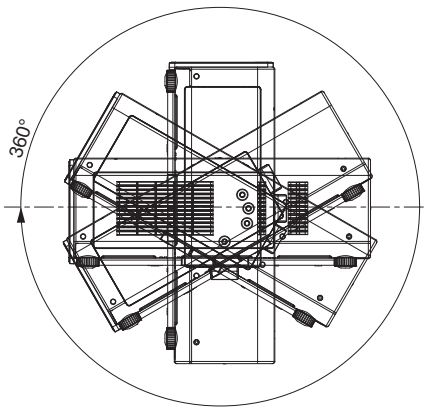



**• Because the ET-D75LE5 is a fixed short-throw lens, the lens shift function cannot be used with it.**

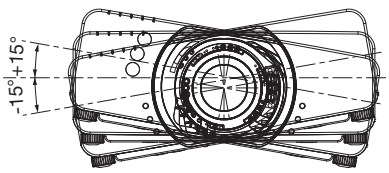
### Installable angle

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 signals that can be input to this projector are shown in the table below. Horizontal scanning frequencies of 15 to 100 kHz, vertical scanning frequencies of 24 to 120 Hz, and a dot clock of 162 MHz maximum can be input.

**NOTE: The native resolution of this projector is 1,920 × 1,200 pixels. If the display resolution of the input signal is different from the native resolution, image compression or expansion will be used to convert the input signal to a level within the native resolution.**

| Display mode | Display resolution (dots)[1] | Scanning frequency H (kHz) | Scanning frequency V (kHz) | Dot clock frequency (MHz) | Format |
|---|---|---|---|---|---|
| NTSC/NTSC4.43/PAL-M/PAL6 | 720 × 480i | 15.7 | 59.9 | – | VIDEO/S-VIDEO |
| PAL/PAL-N/SECAM | 720 × 576i | 15.6 | 50.0 | – | |
| 480i (525i) | 720 × 480i | 15.7 | 59.9 | 13.5 | SDI/RGB/$YP_BP_R$ |
| 576i (625i) | 720 × 576i | 15.6 | 50.0 | 13.5 | |
| 480p (525p) | 720 × 483 | 31.5 | 59.9 | 27.0 | HDMI/DVI-D/ |
| 576p (625p) | 720 × 576 | 31.3 | 50.0 | 27.0 | RGB/$YP_BP_R$ |
| 720/60p | 1280 × 720 | 45.0 | 60.0 | 74.3 | |
| 720/50p | 1280 × 720 | 37.5 | 50.0 | 74.3 | |
| 1080/60i | 1920 × 1080i | 33.8 | 60.0 | 74.3 | |
| 1080/50i | 1920 × 1080i | 28.1 | 50.0 | 74.3 | |
| 1080/24p | 1920 × 1080 | 27.0 | 24.0 | 74.3 | |
| 1080/24sF | 1920 × 1080i | 27.0 | 24.0 | 74.3 | |
| 1080/25p | 1920 × 1080 | 28.1 | 50.0 | 74.3 | |
| 1080/30p | | 33.8 | 60.0 | 74.3 | |
| 1080/60p | | 67.5 | 60.0 | 148.5 | |
| 1080/50p | | 56.3 | 50.0 | 148.5 | |
| VGA400 | 640 × 400 | 31.5 | 70.1 | 25.2 | HDMI/DVI-D/RGB |
| | | 37.9 | 85.1 | 31.5 | |
| VGA480 | 640 × 480 | 31.5 | 59.9 | 25.2 | |
| | | 35.0 | 66.7 | 30.2 | |
| | | 37.9 | 72.8 | 31.5 | |
| | | 37.5 | 75.0 | 31.5 | |
| | | 43.3 | 85.0 | 36.0 | |
| SVGA | 800 × 600 | 35.2 | 56.3 | 36.0 | |
| | | 37.9 | 60.3 | 40.0 | |
| | | 48.1 | 72.2 | 50.0 | |
| | | 46.9 | 75.0 | 49.5 | |
| | | 53.7 | 85.1 | 56.3 | |
| MAC16 | 832 × 624 | 49.7 | 74.6 | 57.3 | |
| XGA | 1024 × 768 | 39.6 | 50.0 | 51.9 | |
| | | 48.4 | 60.0 | 65.0 | |
| | | 56.5 | 70.1 | 75.0 | |
| | | 60.0 | 75.0 | 78.8 | |
| | | 65.5 | 81.6 | 86.0 | |
| | | 68.7 | 85.0 | 94.5 | |
| | | 80.0 | 100.0 | 105.0 | |
| | | 96.7 | 120.0 | 130.0 | |
| MXGA | 1152 × 864 | 53.7 | 60.0 | 81.6 | |
| | | 64.0 | 71.2 | 94.2 | |
| | | 67.5 | 74.9 | 108.0 | |
| | | 76.7 | 85.0 | 121.5 | |
| MAC21 | 1152 × 870 | 68.7 | 75.1 | 100.0 | |
| 1280 × 700 | 1280 × 700 | 37.1 | 49.8 | 60.5 | |
| | | 44.8 | 59.9 | 74.5 | |
| 1280 × 768 | 1280 × 768 | 39.6 | 49.9 | 65.3 | |
| | | 47.8 | 59.9 | 79.5 | |
| | 1280 × 768[2] | 47.4 | 60.0 | 68.3 | |
| | 1280 × 768 | 60.3 | 74.9 | 102.3 | |
| | | 68.6 | 84.8 | 117.5 | |

**1. The "i" appearing after the resolution indicates an interlaced signal.**

**2. WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).**

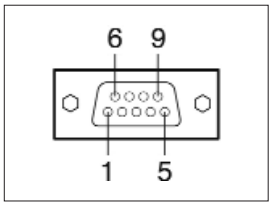
| Display mode | Display resolution (dots)[1] | Scanning frequency H (kHz) | Scanning frequency V (kHz) | Dot clock frequency (MHz) | Format |
|---|---|---|---|---|---|
| 1280 × 800 | 1280 x 800 | 41.3 | 50.0 | 68.0 | HDMI/DVI-D/RGB |
| | | 49.7 | 59.8 | 83.5 | |
| | 1280 x 800[2] | 49.3 | 59.9 | 71.0 | |
| | 1280 x 800 | 62.8 | 74.9 | 106.5 | |
| | | 71.6 | 84.9 | 122.5 | |
| MSXGA | 1280 x 960 | 60.0 | 60.0 | 108.0 | |
| SXGA | 1280 × 1024 | 52.4 | 50.0 | 88.0 | |
| | | 64.0 | 60.0 | 108.0 | |
| | | 72.3 | 66.3 | 125.0 | |
| | | 78.2 | 72.0 | 135.1 | |
| | | 80.0 | 75.0 | 135.0 | |
| | | 91.1 | 85.0 | 157.5 | |
| 1366×768 | 1280 × 768 | 47.7 | 59.8 | 84.8 | |
| | | 39.6 | 49.9 | 69.0 | |
| SXGA+ | 1400 × 1050 | 54.1 | 50.0 | 99.9 | |
| | | 64.0 | 60.0 | 108.0 | |
| | | 65.2 | 60.0 | 122.6 | |
| | | 65.3 | 60.0 | 121.8 | |
| | | 78.8 | 72.0 | 149.3 | |
| | | 82.2 | 75.0 | 155.9 | |
| WXGA+ | 1440 × 900 | 55.9 | 59.9 | 106.5 | |
| | | 46.3 | 49.9 | 86.8 | |
| UXGA60 | 1600 × 1200 | 75.0 | 60.0 | 162.0 | |
| WSXGA+ | 1680 × 1050 | 65.3 | 60.0 | 146.3 | |
| | | 54.1 | 50.0 | 119.5 | |
| 1920×1080 | 1920 × 1080 | 55.6 | 49.9 | 141.5 | |
| | 1920 × 1080[2] | 66.6 | 59.9 | 138.5 | |
| | 1920 × 1080 | 67.2 | 60.0 | 173.0 | RGB |
| WUXGA | 1920 × 1200 | 61.8 | 49.9 | 158.3 | HDMI/DVI-D/RGB |
| | 1920 × 1200[2] | 74.0 | 60.0 | 154.0 | |
| | 1920 × 1200 | 74.6 | 59.9 | 193.3 | RGB |

**1. The "i" appearing after the resolution indicates an interlaced signal.**
**2. WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).**

### Serial connector

The serial connector complies with RS-232C. To control the projector from a personal computer, commands must be input through communication software, based on the format and satisfying the communication conditions shown below.

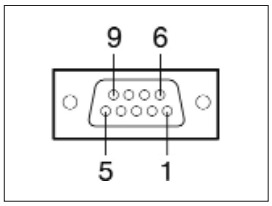
### Pin assignments and signal names




D-sub 9-pin (female)
Serial input

| No. | Signal name | Description | No. | Signal name | Description |
|---|---|---|---|---|---|
| 1 | – | NC | 6 | – | NC |
| 2 | TXD | Send data | 7 | CTS | Connected internally |
| 3 | RXD | Receive data | 8 | RTS | Connected internally |
| 4 | – | Connected internally | 9 | – | NC |
| 5 | GND | Ground | | | |

### Pin assignments and signal names




D-sub 9-pin (male)
Serial output

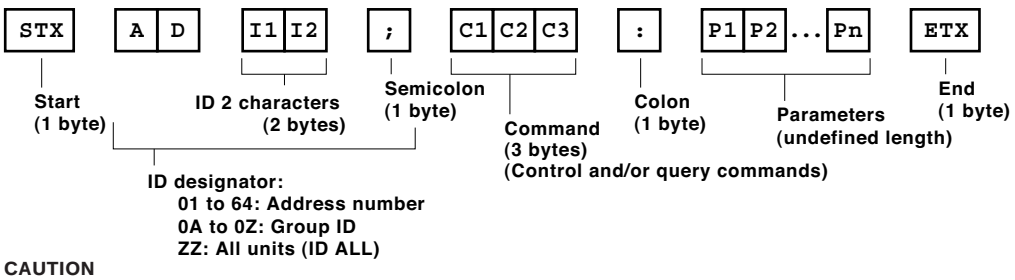
| No. | Signal name | Description | No. | Signal name | Description |
|---|---|---|---|---|---|
| 1 | – | NC | 6 | – | NC |
| 2 | RXD | Receive data | 7 | RTS | Connected internally |
| 3 | TXD | Send data | 8 | CTS | Connected internally |
| 4 | – | Connected internally | 9 | – | NC |
| 5 | GND | Ground | | | |

### Communication conditions (factory setting)

| | |
|---|---|
| Signal level | RS-232C-compliant |
| Synchronization method | Start-stop synchronization |
| Baud rate | 9,600 bps |
| Parity | None |
| Character length | 8 bits |
| Stop bit | 1 bit |
| X parameter | None |
| Y parameter | None |

### Basic format

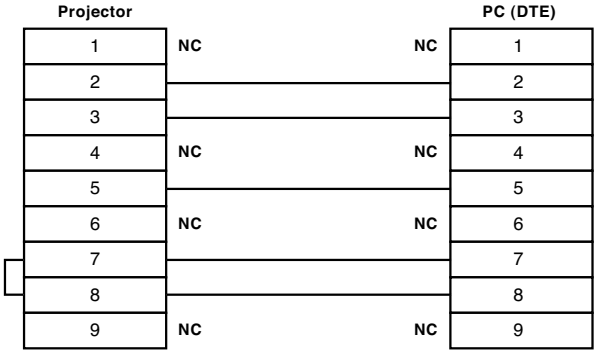
Transmission from the computer begins with STX, then the ID, command, parameter, and ETX are sent in this order. Add parameters according to the details of control.




**CAUTION**

- **It may not be possible to send or receive commands for about 10 to 60 seconds when the lamp is first turned on. If this occurs, wait for 60 seconds, then try sending or receiving again.**
- **When sending multiple commands, be sure to wait for at least 0.5 second after receiving a response from the projector before sending the next command.**
- **Additional time is sometimes required for response due to processing inside the projector. Set the time-out period for command response to 10 seconds or more.**

## Cable specifications




## Control commands

| Command : Parameter | Function | | Callback |
|---|---|---|---|
| PON | POWER (STANDBY) | Standby power on | PON |
| POF | | Standby power off | POF |
| IIS:SDI | INPUT SELECT | SDI | IIS:SDI |
| IIS:HD1 | | HDMI | IIS:HD1 |
| IIS:DVI | | DVI | IIS:DVI |
| IIS:RG1 | | RGB 1 | IIS:RG1 |
| IIS:RG2 | | RGB 2 | IIS:RG2 |
| IIS:VID | | Video | IIS:VID |
| IIS:SVD | | S-Video | IIS:SVD |
| LPM:0 | LAMP SELECT | Dual (two lamps) | LPM:0 |
| LPM:1 | | Single (one lamp) | LPM:1 |
| OSH:0 | SHUTTER | Shutter off | OSH:0 |
| OSH:1 | | Shutter on | OSH:1 |
| OPP:0 | P IN P SELECT | Off | OPP:0 |
| OPP:1 | | User 1 | OPP:1 |
| OPP:2 | | User 2 | OPP:2 |
| OPP:3 | | User 3 | OPP:3 |
| OAS | AUTO SETUP | | OAS |
| VPM:NAT | PICTURE MODE | Natural | VPM:NAT |
| VPM:STD | | Standard | VPM:STD |
| VPM:DYN | | Dynamic | VPM:DYN |
| VPM:CIN | | Cinema | VPM:CIN |
| VPM:GRA | | Graphic | VPM:GRA |
| VPM:DIC | | DICOM | VPM:DIC |
| VXX:DLVI0=+00000 | SYSTEM DAYLIGHT VIEW 2 | Off | VXX:DLVI0=+00000 |
| VXX:DLVI0=+00001 | | 1 | VXX:DLVI0=+00001 |
| VXX:DLVI0=+00002 | | 2 | VXX:DLVI0=+00002 |
| VXX:DLVI0=+00003 | | 3 | VXX:DLVI0=+00003 |
| OTE:4 | COLOR TEMPERATURE | User 1 | OTE:4 |
| OTE:9 | | User 2 | OTE:9 |
| OTE:10 | | Default | OTE:10 |
| OTE:p1p2p3p4 | | 3200 K – 9300 K (100 K steps) | OTE:p1p2p3p4 |
| TSD:y1y2y3y4m1m2d1d2w | DATE | Date setting | TSD:y1y2y3y4m1m2d1d2w |
| TST:h1h2m1m2s1s2 | TIME | Time setting | TST:h1h2m1m2s1s2 |
| OOS:0 | ON SCREEN | On-screen display off | OOS:0 |
| OOS:1 | | On-screen display on | OOS:1 |

*** Do not send PON, POF, OSH, or OLP commands continuously in a short period of time. Doing so may burst the lamp or shorten the lamp replacement cycle.**

*** When a command that cannot be executed during standby mode is sent, the projector will send an ER401 command in reply.**

### Status asking commands

| Command:Parameter | Function | Callback | Description |
|---|---|---|---|
| QPW | Main power status | 000 | Standby (Off) |
| | | 001 | On |
| QSH | Shutter function status | 0 | Off |
| | | 1 | On |
| QFZ | Freeze function status | 0 | Off |
| | | 1 | On |
| QIN | Input signal status | SDI | SDI |
| | | HD1 | HDMI |
| | | DVI | DVI |
| | | RG1 | RGB 1 |
| | | RG2 | RGB 2 |
| | | VID | Video |
| | | SVD | S-Video |
| QOS | On-screen display status | 0 | Off |
| | | 1 | On |
| QST | Projector run time | p1p2p3p4p5 | 00000h–99999h |
| Q$L:1 | Lamp 1 run time | p1p2p3p4 | 0000h–9999h |
| Q$L:2 | Lamp 2 run time | p1p2p3p4 | 0000h–9999h |
| QSL | Lamp operation mode status | 0 | Dual (two lamps) |
| | | 1 | Single (one lamp) |
| QLP | Lamp power mode status | 0 | High |
| | | 1 | Low |
| QPM | Picture mode status | NAT | Natural |
| | | STD | Standard |
| | | DYN | Dynamic |
| | | CIN | Cinema |
| | | GRA | Graphic |
| | | DIC | DICOM |
| QVX:DLVI0 | System daylight view status | DLVI0=+00000 | Off |
| | | DLVI0=+00001 | 1 |
| | | DLVI0=+00002 | 2 |
| | | DLVI0=+00003 | 3 |
| QPP | P in P status | 0 | Off |
| | | 1 | User 1 |
| | | 2 | User 2 |
| | | 3 | User 3 |
| QTM:0 | Temperature status | p1p2p3p4/p5p6p7p8 (*1) | p0 = Intake air |
| QTM:1 | | | p1 = Around lamp |
| QTM:2 | | | p2 = Optics module |
| QGD | Date setting status | y1y2y3y4m1m2d1d2w | yyyymmdd (day of week) (*2) |
| QGT | Time setting status | h1h2m1m2s1s2 | hhmmss (*3) |

*1 p1p2p3p4: Celsius (°C), p5p6p7p8: Fahrenheit (°F)
*2 Day of week: Monday = 1, Tuesday = 2, ... Sunday = 7
*3 Set the date and time to UTC (universal time coordinated).

### Command example

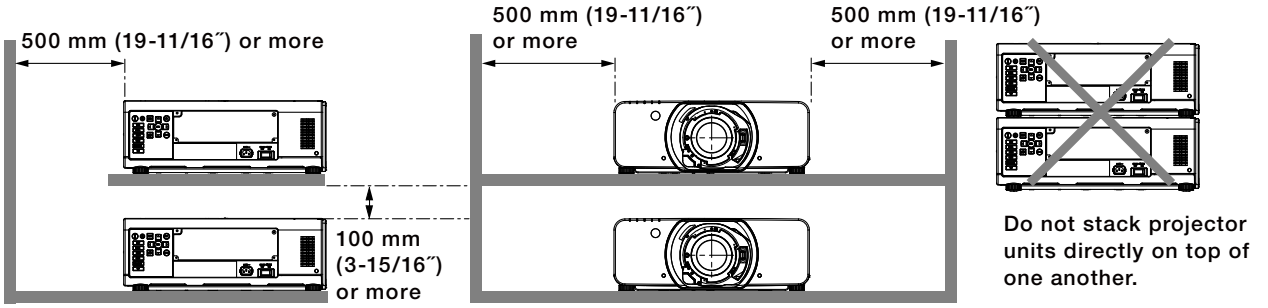
To set the on-screen display off, send the command as shown below.


**NOTE: When sending commands without parameters, a colon (:) is not necessary.**

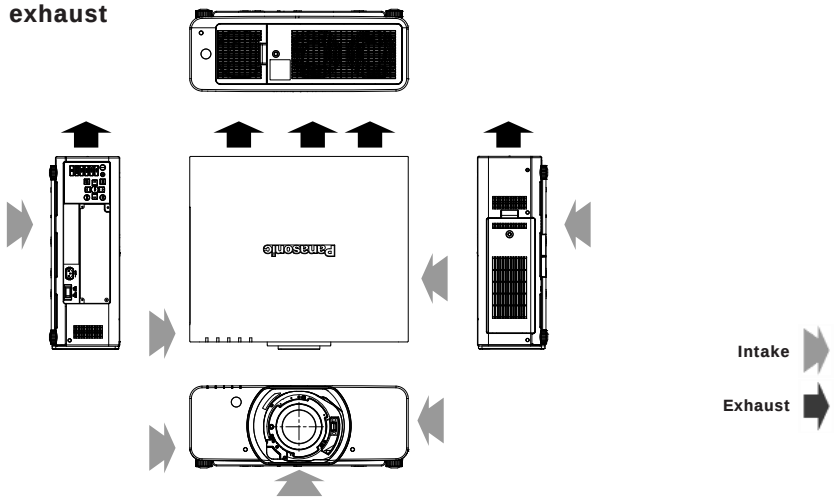
**Notes on projector placement and operation**

The projector uses a high-wattage lamp that becomes very hot during operation. Please observe the following precautions.

1. Never place objects on top of the projector while it is operating.
2. Make sure there is an unobstructed space of 500 mm (19-11/16″) or more around the projector's exhaust openings.
3. Do not stack projector units directly on top of one another. If two units must be stacked for back-up use in ordinary projection, use a method as shown below and provide ample space between the units to ensure that exhaust heat does not accumulate near the intake opening or around the units. Dual stacked projection is not recommended.
4. 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.
5. 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, or may shorten the replacement cycle for the Auto Cleaning Filter (ACF) Unit.
6. If the projector is installed in an enclosed space, ensure that the temperature of the air surrounding the projector is between 0°C (32°F) and 40°C (104°F). Also make sure that the projector's intake and exhaust openings are not blocked. Even though the air surrounding the projector is 40°C (104°F) or less, if hot exhaust air accumulates inside the space, it may cause the projector's protective circuit to interrupt projector operation, or may shorten the replacement cycle for the ACF Unit. Pay particular attention to the surrounding temperature conditions when planning the installation.
7. If the projector is not to be set on the floor using adjuster legs, install it by using the five ceiling-mount screw holes (screw diameter: M6, length of each screw hole in the projector: 8 mm (5/16″)). Provide a space of 5 to 10 mm (3/16″ to 13/32″) between the projector and the mounting surface by inserting metal spacers.




**Direction of air intake and exhaust**



**Operating the projector continuously**

1. If the projector is to be operated continuously 24 hours a day, use the dual-lamp optical system's alternating lamp operation (lamp changer) function. The projector cannot be operated continuously 24 hours a day in dual-lamp mode.
   Allow a minimum of two hours per day of non-operation time.
2. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.

**Replacing the filter unit**

The projector is equipped with the Auto Cleaning Filter (ACF) function, which automatically winds the air filter to set a new filter element in place according to operating conditions. The filter unit replacement cycle is approximately 10,000 hours*. Please purchase the ET-ACF310 filter unit for replacement use.

*** The replacement cycle given here is a guideline. It may differ depending on the usage environment.**