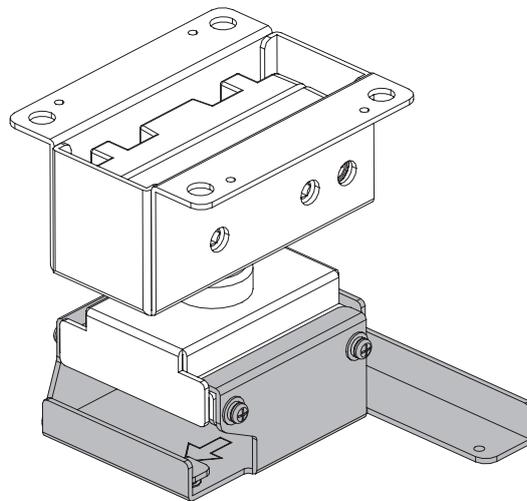


**Panasonic**<sup>®</sup>

# Installation Instructions

## Projector Mount Bracket

Model No. **ET-PKL300B**



- \* The figure above shows a combination of this product and the separately sold ET-PKV100S ceiling mount bracket (for low ceilings).
- \* Unless specified otherwise, figures in these instructions show a combination with the ceiling mount bracket (for low ceilings). The installation method is also the same as that of the ceiling mount bracket (for high ceilings).

Thank you for purchasing this Panasonic product.

- To customers  
The "Installation Instructions" is intended for use by installation personnel. Be sure to employ certified personnel to perform the installation.  
After installation, have the installation personnel return these "Installation Instructions" to you, and save it for future use.  
When moving or removing the projector, give this manual to the certified personnel and have them perform the procedure.
- To installation personnel  
Read the "Installation Instructions" thoroughly and then perform the operation correctly and safely.  
**Be sure to read through the section entitled "Read this first!" (page 3) before proceeding with the installation.**  
After installation, return these "Installation Instructions" to the customer.

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# Read this first!

Always follow these precautions

## WARNING:

**Installation work should only be carried out by the certified personnel.**

- If this product is not installed correctly, serious accidents may result.
- Follow the instructions specified in "Installation" of this manual, and perform secure installation.

**Do not install in a place which is not strong enough.**

- If the installation location is not strong enough, the ceiling bracket may fall down and an injury may result.

**Make sure that your footing is safe and secure during installation.**

- If your footing is not secure, you may fall down or drop the bracket, and an injury may result.

**Make sure that the ceiling bracket is installed correctly in accordance with the structure and materials used at the installation location.**

- If a mistake is made in the installation procedure, the ceiling bracket may fall down and an injury may result.

**Do not loosen or remove the ceiling mount bracket screws or bolts unnecessarily.**

- The projector may fall down and injury may result.

**Do not set up the projector in humid or dusty places or in places where the projector may come into contact with oily smoke or steam.**

- Using the projector under such conditions may result in fire, electric shocks or plastic deterioration. The plastic deterioration may cause the falling down of the projector which is mounted in the ceiling.

**Do not allow children to reach the attached metal fittings and screws.**

- The attached metal fittings and screws can cause personal injury if swallowed.
- If swallowed, seek medical advice immediately.

**Mounting must be carried out by two or more persons.**

- When installing the projector in an overhead location, such as a high ceiling, at least two persons are required to handle mounting and installation.

**Do not disassemble or modify the ceiling mount bracket.**

- The projector may be damaged or fall, causing injury.

## CAUTION:

**Install only the designated projector.**

**Install only using the designated method.**

- Otherwise, the projector may fall and become damaged, and cause injury.

**Do not install the ceiling bracket in a place which may impede projector ventilation.**

- If this is not observed, fire may result.

**Do not hang from or hang objects on the projector or ceiling mount bracket.**

- The projector may fall and cause injury.

**When installing, always use the supplied components.**

- Otherwise, this may cause damaged projector to fall and cause injury.

**Install the mounting screws and power cable in such a way that they will not make contact with the inside parts of the ceiling.**

- Electric shocks may result from contact with any metal objects inside the ceiling.

■ **Panasonic disclaims all liability for any accidents or any damage caused by the installation of the ceiling mount bracket using methods that are not described in these Installation Instructions or methods that do not use the parts specified in these Instructions.**

■ **If products are no longer being used, they should be dismantled and removed by the certified personnel as soon as possible.**

# Product description

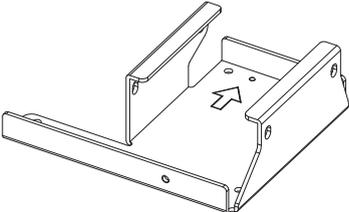
This is a ceiling mount bracket for installing projectors.

## ■ Applicable ceiling mount brackets

Ceiling mount bracket (for low ceilings): ET-PKV100S

Ceiling mount bracket (for high ceilings): ET-PKV100H

## ■ Structural components

Parts name	Form (number of parts)	Applications
Projector mount bracket	 × 1	This is used to install the projector itself.
Safety fixture	 × 1	This prevents a screw that secures the projector to the bracket from coming loose.
Screws and bolts	 × 4	These are used to assemble the bracket and mount it onto the projector.
	 × 1  × 3	
Ceiling mount bracket drop prevention kit	 × 1  × 1 Wire rope for the ceiling mount bracket (2.0mm (3/32") wire diameter, 800mm (31-1/2") length)	Prevents the ceiling mount bracket from falling.
Projector drop prevention kit	 × 1  × 1 Wire rope for the projector (2.0 mm (3/32") wire diameter, 600 mm (23-5/8") length)	Prevents the projector from falling.

## ■ The user must also obtain the following parts. (commercially-available)

Installation work		Required parts	Page
Installing the ceiling mount bracket drop prevention kit to the ceiling (Bolt size: M8)	Installing to a wooden structure	Ceiling mount bolt (× 1), Hex nut (× 2), Flat washer (× 1), Spring washer (× 1)	19
	Installing to a concrete structure	Anchoring nut or curled plug (× 1), Hex head bolt (× 1), Spring washer (× 1)	19

- Store small parts in an appropriate manner, and keep them away from small children.
- Tightening torque for the screws are, M3: 0.8±0.1 N•m, M4: 1.25±0.2 N•m, and M8: 10±1 N•m.
- When tightening up the screws, use a tool such as a torque screwdriver or torque wrench. Do not use electric screwdrivers or impact screwdrivers.

### Attention

- Dispose of the packaging materials properly after taking the product out of it.

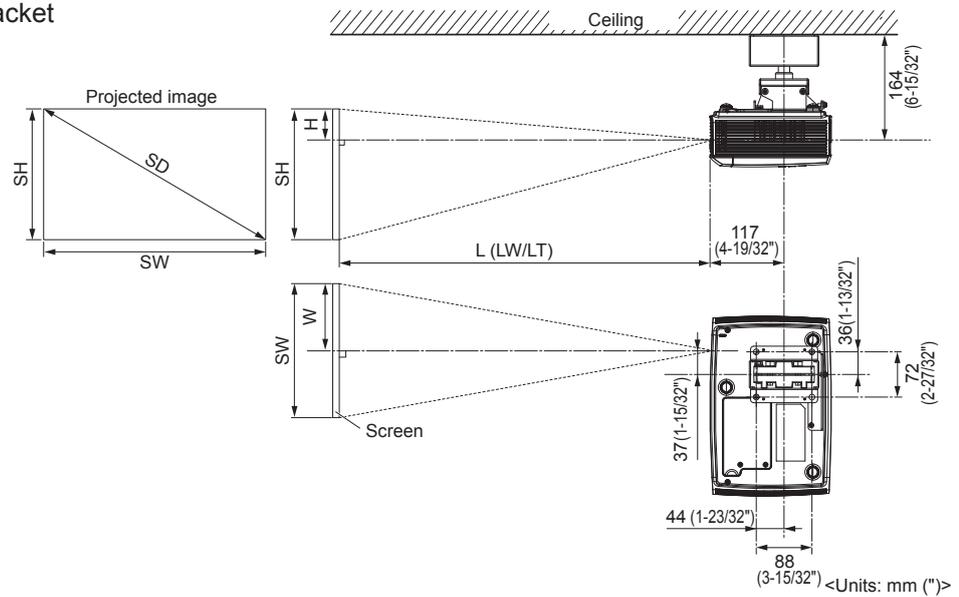




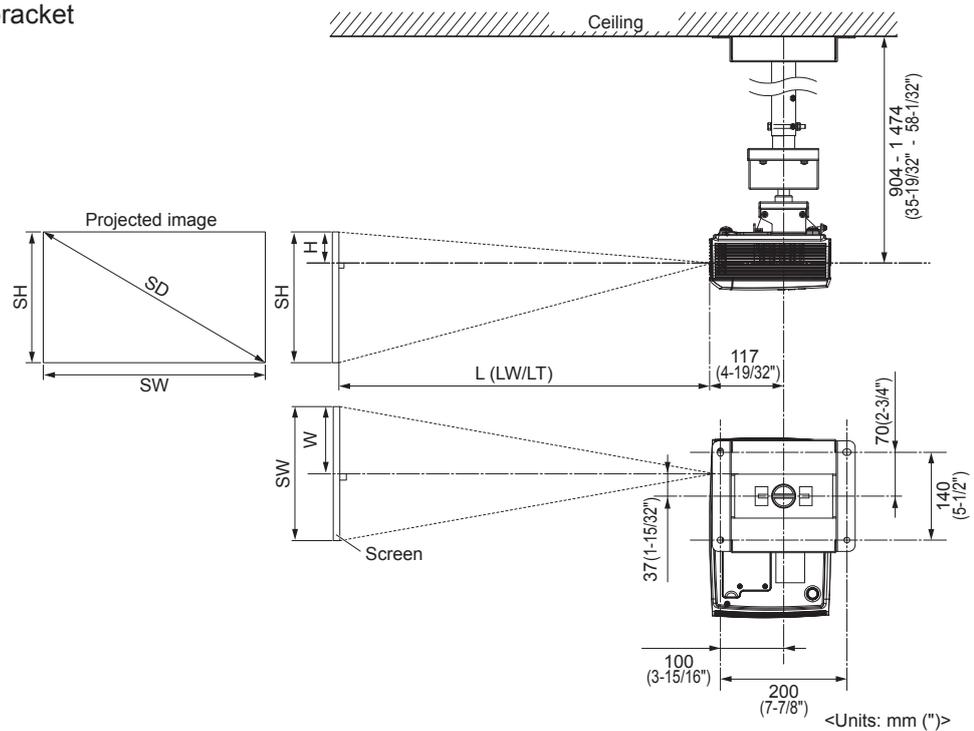
## Standard installation dimensions (continued)

### <When using the PT-LX300/PT-LX270>

When using the ceiling mount bracket  
(for low ceilings)



When using the ceiling mount bracket  
(for high ceilings)



(Note) This drawing is not in exact scale.

#### Attention

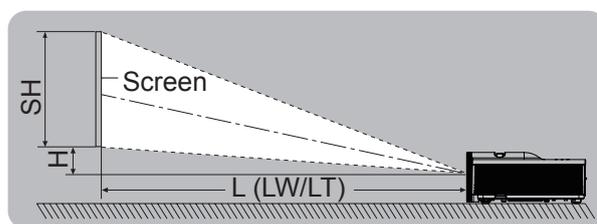
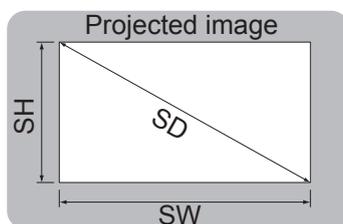
- Install the projector at least 500 mm (19-11/16") (1,000 mm (39-3/8") on the exhaust port side) away from the surrounding walls or objects in order to ensure that the air intake/exhaust ports of the projector will not be blocked.
- Avoid setting up in places which are subject to sudden temperature changes, such as near an air conditioner or lighting equipment.

#### Note

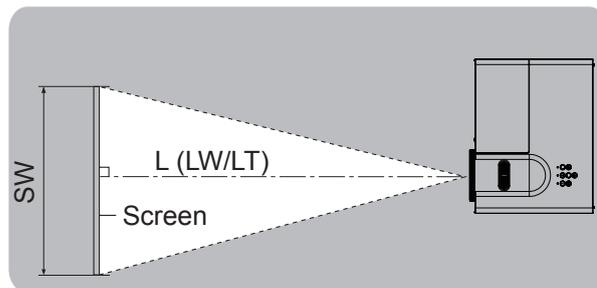
- Depending on the product, the appearance may differ from the illustrations in these installation instructions.

## Standard installation dimensions (continued)

### Throw distance



L (LW/LT) *1	Projection distance (m)
SH	Height of the projection area (m)
SW	Width of the projection area (m)
H	Distance from the center of lens to the image lower end (m)
SD	Diagonal length of the projection area (m)



\*1: LW: Minimum distance, LT: Maximum distance

## Standard installation dimensions (continued)

### Projection distance for PT-LW321 and PT-LW271

All measurements below are approximate and may differ slightly from the actual measurements. (unit: m ("))

Projection size	For 4:3 aspect ratio			For 16:9 aspect ratio			For 16:10 aspect ratio		
	Screen diagonal (SD)	Minimum distance (LW)	Maximum distance (LT)	Height position (H)	Minimum distance (LW)	Maximum distance (LT)	Height position (H)	Minimum distance (LW)	Maximum distance (LT)
0.76 (30")	1.2 (3'11")	1.3 (4'3")	0.06 (2")	1.0 (3'3")	1.1 (3'7")	0.07 (3")	1.0 (3'3")	1.1 (3'7")	0.05 (2")
1.02 (40")	1.5 (4'11")	1.7 (5'7")	0.08 (3")	1.4 (4'7")	1.5 (4'11")	0.10 (4")	1.3 (4'3")	1.5 (4'11")	0.07 (3")
1.27 (50")	1.9 (6'3")	2.1 (6'11")	0.09 (4")	1.7 (5'7")	1.9 (6'3")	0.12 (5")	1.7 (5'7")	1.8 (5'11")	0.08 (3")
1.52 (60")	2.3 (7'7")	2.5 (8'2")	0.11 (4")	2.1 (6'11")	2.3 (7'7")	0.14 (6")	2.0 (6'7")	2.2 (7'3")	0.10 (4")
1.78 (70")	2.7 (8'10")	2.9 (9'6")	0.13 (5")	2.4 (7'10")	2.6 (8'6")	0.17 (7")	2.3 (7'7")	2.6 (8'6")	0.12 (5")
2.03 (80")	3.0 (9'10")	3.3 (10'10")	0.15 (6")	2.7 (8'10")	3.0 (9'10")	0.19 (7")	2.7 (8'10")	2.9 (9'6")	0.13 (5")
2.29 (90")	3.4 (11'2")	3.7 (12'2")	0.17 (7")	3.1 (10'2")	3.4 (11'2")	0.22 (9")	3.0 (9'10")	3.3 (10'10")	0.15 (6")
2.54 (100")	3.8 (12'6")	4.2 (13'9")	0.19 (7")	3.4 (11'2")	3.8 (12'6")	0.24 (9")	3.3 (10'10")	3.7 (12'2")	0.17 (7")
3.05 (120")	4.5 (14'9")	5.0 (16'5")	0.23 (9")	4.1 (13'5")	4.5 (14'9")	0.29 (11")	4.0 (13'1")	4.4 (14'5")	0.20 (8")
3.81 (150")	5.7 (18'8")	6.2 (20'4")	0.28 (11")	5.1 (16'9")	5.7 (18'8")	0.36 (12")	5.0 (16'5")	5.5 (18'1")	0.25 (10")
5.08 (200")	7.6 (24'11")	8.3 (27'3")	0.38 (1'3")	6.9 (22'8")	7.5 (24'7")	0.48 (1'7")	6.7 (22')	7.3 (23'11")	0.33 (1'1")
6.35 (250")	9.5 (31'2")	10.4 (34'1")	0.47 (1'7")	8.6 (28'3")	9.4 (30'10")	0.60 (2')	8.3 (27'3")	9.2 (30'2")	0.42 (1'5")
7.62 (300")	11.3 (37'1")	12.4 (40'8")	0.57 (1'10")	10.3 (33'10")	11.3 (37'1")	0.72 (2'4")	10.0 (32'10")	11.0 (36'1")	0.50 (1'8")

#### ● Calculation formulas for projection distance

Any other projection distance can be obtained according to the screen dimensions (m) using the following calculations. The calculation result is with the "m" unit. (The calculated distance below may contain a certain error.) If the screen dimensions are written as "SD",

	For 4:3 aspect ratio	For 16:9 aspect ratio	For 16:10 aspect ratio
Screen height (SH)	= SD × 0.6	= SD × 0.490	= SD × 0.530
Screen width (SW)	= SD × 0.8	= SD × 0.872	= SD × 0.848
Min. projection distance (LW)	= 1.488 × SD	= 1.350 × SD	= 1.314 × SD
Max. projection distance (LT)	= 1.632 × SD	= 1.482 × SD	= 1.441 × SD

#### Note

- The throw ratio is 1.55 to 1.70:1 when the projection size is 2.54m (100").

## Standard installation dimensions (continued)

### ■ Projection distance for PT-LX351, PT-LX321 and PT-LX271

All measurements below are approximate and may differ slightly from the actual measurements. (unit: m ("))

Projection size	For 4:3 aspect ratio			For 16:9 aspect ratio		
	Screen diagonal (SD)	Minimum distance (LW)	Maximum distance (LT)	Height position (H)	Minimum distance (LW)	Maximum distance (LT)
0.76 (30")	1.2 (3'11")	1.3 (4'3")	0.07 (3")	1.3 (4'3")	1.4 (4'7")	0.14 (6")
1.02 (40")	1.6 (5'3")	1.8 (5'11")	0.09 (4")	1.7 (5'7")	1.9 (6'3")	0.18 (7")
1.27 (50")	2.0 (6'7")	2.2 (7'3")	0.11 (4")	2.2 (7'3")	2.4 (7'10")	0.23 (9")
1.52 (60")	2.4 (7'10")	2.6 (8'6")	0.14 (6")	2.6 (8'6")	2.9 (9'6")	0.27 (11")
1.78 (70")	2.8 (9'2")	3.1 (10'2")	0.16 (6")	3.0 (9'10")	3.3 (10'10")	0.32 (1'1")
2.03 (80")	3.2 (10'6")	3.5 (11'6")	0.18 (7")	3.5 (11'6")	3.8 (12'6")	0.37 (1'3")
2.29 (90")	3.6 (11'10")	3.9 (12'10")	0.21 (8")	3.9 (12'10")	4.3 (14'1")	0.41 (1'4")
2.54 (100")	4.0 (13'1")	4.4 (14'5")	0.23 (9")	4.3 (14'1")	4.8 (15'9")	0.46 (1'6")
3.05 (120")	4.8 (15'9")	5.2 (17'1")	0.27 (11")	5.2 (17'1")	5.7 (18'8")	0.55 (1'10")
3.81 (150")	5.9 (19'4")	6.6 (21'8")	0.34 (1'1")	6.5 (21'4")	7.1 (23'4")	0.69 (2'3")
5.08 (200")	7.9 (25'11")	8.7 (28'7")	0.46 (1'6")	8.6 (28'3")	9.5 (31'2")	0.91 (3')
6.35 (250")	9.9 (32'6")	10.9 (35'9")	0.57 (1'10")	10.8 (35'5")	11.9 (39'1")	1.14 (3'9")
7.62 (300")	11.9 (39'1")	13.1 (43')	0.69 (2'3")	13.0 (42'8")	14.3 (46'11")	1.37 (4'6")

### ● Calculation formulas for projection distance

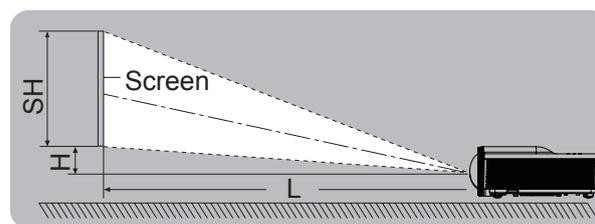
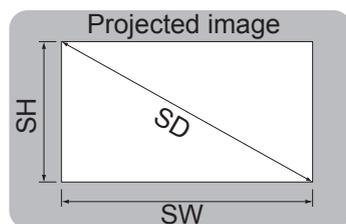
Any other projection distance can be obtained according to the screen dimensions (m) using the following calculations. The calculation result is with the "m" unit. (The calculated distance below may contain a certain error.) If the screen dimensions are written as "SD",

	For 4:3 aspect ratio	For 16:9 aspect ratio
Screen height (SH)	= SD × 0.6	= SD × 0.490
Screen width (SW)	= SD × 0.8	= SD × 0.872
Min. projection distance (LW)	= 1.560 × SD	= 1.700 × SD
Max. projection distance (LT)	= 1.720 × SD	= 1.874 × SD

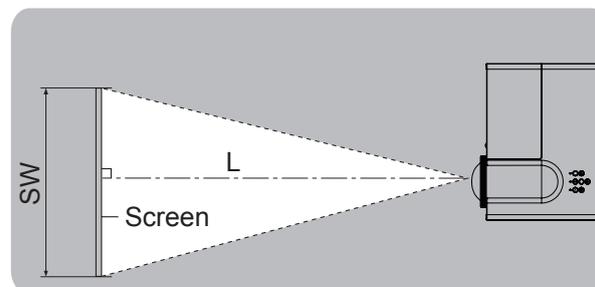
#### Note

- The throw ratio is 1.95 to 2.15:1 when the projection size is 2.54m (100").

## Standard installation dimensions (continued)



L	Projection distance (m)
SH	Height of the projection area (m)
SW	Width of the projection area (m)
H	Distance from the center of lens to the image lower end (m)
SD	Diagonal length of the projection area (m)



### Projection distance for PT-TW330 , PT-TW240 and PT-TW331R

All measurements below are approximate and may differ slightly from the actual measurements.(unit: m ("))

Projection size Screen diagonal (SD)	For 4:3 aspect ratio		For 16:9 aspect ratio		For 16:10 aspect ratio	
	Projection distance (L)	Height position (H)	Projection distance (L)	Height position (H)	Projection distance (L)	Height position (H)
1.27 (50")	0.64 (2'1")	0.09 (4")	0.58 (1'11")	0.12 (5")	0.56 (1'10")	0.08 (3")
1.52 (60")	0.76 (2'6")	0.11 (4")	0.69 (2'3")	0.14 (6")	0.67 (2'2")	0.10 (4")
1.78 (70")	0.89 (2'11")	0.13 (5")	0.81 (2'8")	0.17 (7")	0.79 (2'7")	0.12 (5")
2.03 (80")	1.02 (3'4")	0.15 (6")	0.92 (3')	0.19 (7")	0.90 (2'11")	0.13 (5")
2.29 (90")	1.14 (3'9")	0.17 (7")	1.04 (3'5")	0.22 (9")	1.01 (3'4")	0.15 (6")
2.54 (100")	1.27 (4'2")	0.19 (7")	1.15 (3'9")	0.24 (9")	1.12 (3'8")	0.17 (7")
3.05 (120")	1.52 (5')	0.23 (9")	1.38 (4'6")	0.29 (11")	1.35 (4'5")	0.20 (8")
3.81 (150")	1.91 (6'3")	0.28 (11")	1.73 (5'8")	0.36 (1'2")	1.68 (5'6")	0.25 (10")
5.08 (200")	2.54 (8'4")	0.38 (1'3")	2.31 (7'7")	0.48 (1'7")	2.25 (7'5")	0.33 (1'1")

#### ● Calculation formulas for projection distance

Any other projection distance can be obtained according to the screen dimensions (m) using the following calculations. The calculation result is with the "m" unit. (The calculated distance below may contain a certain error.) If the screen dimensions are written as "SD",

	For 4:3 aspect ratio	For 16:9 aspect ratio	For 16:10 aspect ratio
Screen height (SH)	= SD × 0.6	= SD × 0.490	= SD × 0.530
Screen width (SW)	= SD × 0.8	= SD × 0.872	= SD × 0.848
Projection distance (L)	= 0.500 × SD	= 0.454 × SD	= 0.442 × SD

#### Note

- The throw ratio is 0.52:1 when the projection size is 2.54m (100").

## Standard installation dimensions (continued)

### ■ Projection distance for PT-TX300 and PT-TX301R

All measurements below are approximate and may differ slightly from the actual measurements. (unit: m ("))

Projection size	For 4:3 aspect ratio		For 16:9 aspect ratio	
	Projection distance (L)	Height position (H)	Projection distance (L)	Height position (H)
1.02 (40")	0.51 (1'8")	0.09 (4")	-	-
1.27 (50")	0.64 (2'1")	0.11 (4")	0.69 (2'3")	0.23 (9")
1.52 (60")	0.76 (2'6")	0.14 (6")	0.83 (2'9")	0.27 (11")
1.78 (70")	0.89 (2'11")	0.16 (6")	0.97 (3'2")	0.32 (1'1")
2.03 (80")	1.02 (3'4")	0.18 (7")	1.11 (3'8")	0.37 (1'3")
2.29 (90")	1.14 (3'9")	0.21 (8")	1.25 (4'1")	0.41 (1'4")
2.54 (100")	1.27 (4'2")	0.23 (9")	1.39 (4'7")	0.46 (1'6")
3.05 (120")	1.53 (5')	0.27 (11")	1.66 (5'5")	0.55 (1'10")
3.81 (150")	1.91 (6'3")	0.34 (1'1")	2.08 (6'10")	0.68 (2'3")
5.08 (200")	2.54 (8'4")	0.46 (1'6")	-	-

#### ● Calculation formulas for projection distance

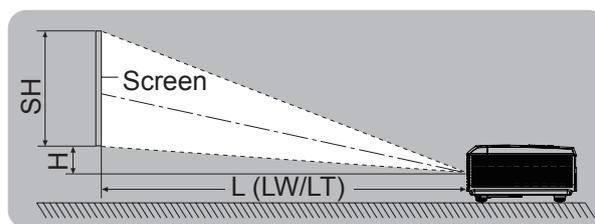
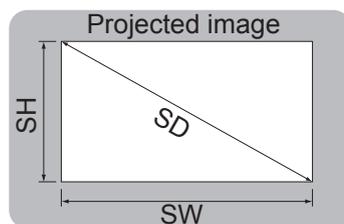
Any other projection distance can be obtained according to the screen dimensions (m) using the following calculations. The calculation result is with the "m" unit. (The calculated distance below may contain a certain error.) If the screen dimensions are written as "SD",

	For 4:3 aspect ratio	For 16:9 aspect ratio
Screen height (SH)	= SD × 0.6	= SD × 0.490
Screen width (SW)	= SD × 0.8	= SD × 0.872
Projection distance (L)	= 0.5008 × SD	= 0.5456 × SD

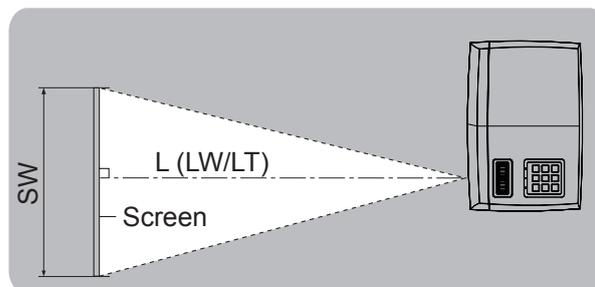
#### Note

- The throw ratio is 0.63:1 when the projection size is 2.54m (100").

## Standard installation dimensions (continued)



L (LW/LT) *1	Projection distance (m)
SH	Height of the projection area (m)
SW	Width of the projection area (m)
H	Distance from the center of lens to the image lower end (m)
SD	Diagonal length of the projection area (m)



\*1: LW: Minimum distance, LT: Maximum distance

### Projection distance for PT-LX300/PT-LX270

All measurements below are approximate and may differ slightly from the actual measurements. (unit: m ("))

Projection size Screen diagonal (SD)	For 4:3 aspect ratio			For 16:9 aspect ratio		
	Minimum distance (LW)	Maximum distance (LT)	Height position (H)	Minimum distance (LW)	Maximum distance (LT)	Height position (H)
0.76 (30")	1.2 (3'11")	1.3 (4'3")	0.07 (3")	1.3 (4'3")	1.4 (4'7")	0.14 (6")
1.02 (40")	1.6 (5'3")	1.8 (5'11")	0.09 (4")	1.7 (5'7")	1.9 (6'3")	0.18 (7")
1.27 (50")	2.0 (6'7")	2.2 (7'3")	0.11 (4")	2.2 (7'3")	2.4 (7'10")	0.23 (9")
1.52 (60")	2.4 (7'10")	2.6 (8'6")	0.14 (6")	2.6 (8'6")	2.9 (9'6")	0.27 (11")
1.78 (70")	2.8 (9'2")	3.1 (10'2")	0.16 (6")	3.0 (9'10")	3.3 (10'10")	0.32 (1'1")
2.03 (80")	3.2 (10'6")	3.5 (11'6")	0.18 (7")	3.5 (11'6")	3.8 (12'6")	0.37 (1'3")
2.29 (90")	3.6 (11'10")	3.9 (12'10")	0.21 (8")	3.9 (12'10")	4.3 (14'1")	0.41 (1'4")
2.54 (100")	4.0 (13'1")	4.4 (14'5")	0.23 (9")	4.3 (14'1")	4.8 (15'9")	0.46 (1'6")
3.05 (120")	4.8 (15'9")	5.2 (17'1")	0.27 (11")	5.2 (17'1")	5.7 (18'8")	0.55 (1'10")
3.81 (150")	5.9 (19'4")	6.6 (21'8")	0.34 (1'1")	6.5 (21'4")	7.1 (23'3")	0.69 (2'3")
5.08 (200")	7.9 (25'11")	8.7 (28'7")	0.46 (1'6")	8.6 (28'3")	9.5 (31'2")	0.91 (3')
6.35 (250")	9.9 (32'6")	10.9 (35'9")	0.57 (1'10")	10.8 (35'5")	11.9 (39'1")	1.14 (3'9")
7.62 (300")	11.9 (39'1")	13.1 (43')	0.69 (2'3")	13.0 (42'8")	14.3 (46'11")	1.37 (4'6")

#### ● Calculation formulas for projection distance

Any other projection distance can be obtained according to the screen dimensions (m) using the following calculations. The calculation result is with the "m" unit. (The calculated distance below may contain a certain error.) If the screen dimensions are written as "SD",

	For 4:3 aspect ratio	For 16:9 aspect ratio
Screen height (SH)	= SD × 0.6	= SD × 0.490
Screen width (SW)	= SD × 0.8	= SD × 0.872
Min. projection distance (LW)	= 1.56 × SD	= 1.70 × SD
Max. projection distance (LT)	= 1.72 × SD	= 1.874 × SD

#### Note

- The throw ratio is 0.52:1 when the projection size is 2.54m (100").

# Installation

After checking the height, width, and structure of the installation location while referring to “Standard installation dimensions” on pages 5 to 13, determine the appropriate positions for setting up the screen and installing the projector.

## Setting up the screen

Set up the screen according to the specified method in a position which takes into account the projection distance and angle and the type of screen being used.

## Screws tightening torques

M3	.....	0.8±0.1 N•m
M4	.....	1.25±0.2 N•m
M8	.....	10±1 N•m

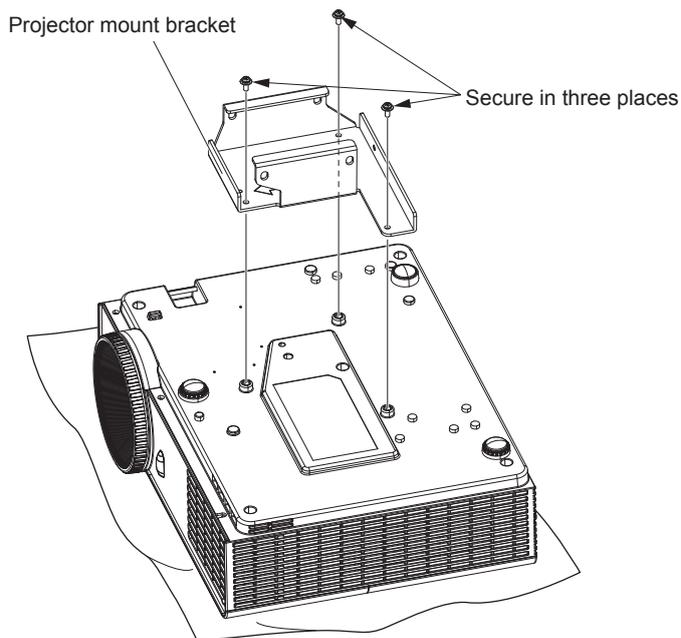
- Use a torque screwdriver or torque wrench to tighten screws and bolts to their specified tightening torques. Do not use electric screwdrivers or impact screwdrivers.

## Installing the bracket to the projector

Attach the projector mount bracket to the projector (sold separately).

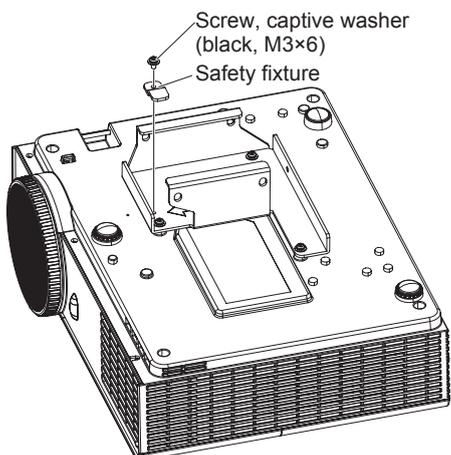
Unless specified otherwise, the illustrations are examples of the PT-LW321 series or PT-LX351 series of projectors.

<When using the PT-LW321/PT-LW271/PT-LX351/PT-LX321/PT-LX271/PT-TW330/PT-TW240/PT-TX300/PT-LX300/PT-LX270>



1) Place the projector upside-down onto a piece of soft material.

2) Secure the projector mount bracket to the bottom of the projector using three supplied captive washer screws (M3 × 8, silver) as illustrated on the left.



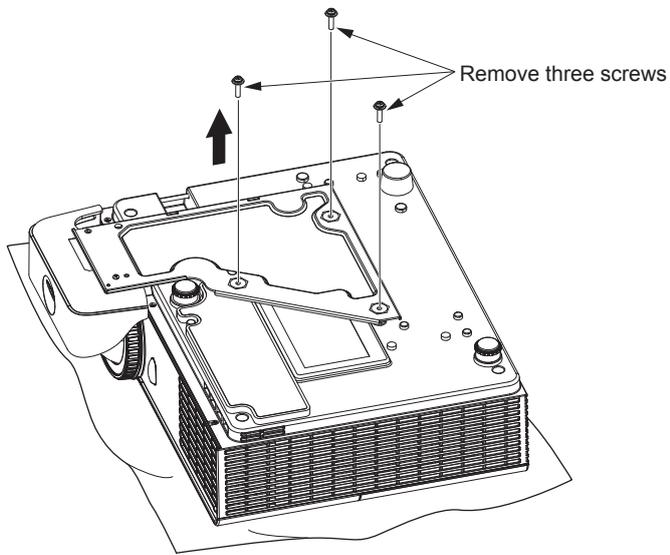
3) Secure the safety fixture to the projector mount bracket using a supplied captive washer screw (M3 × 6, black).

### Note

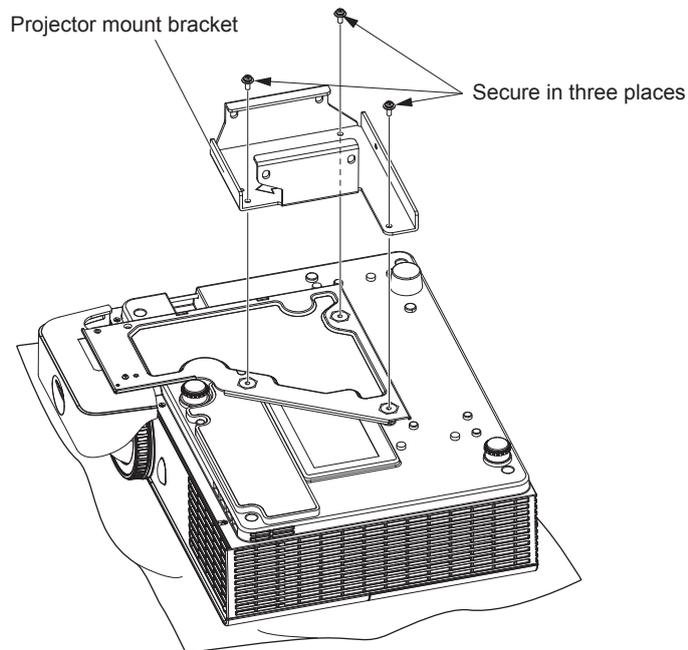
- Make sure the safety fixture is oriented properly before securing it.

## Installation (continued)

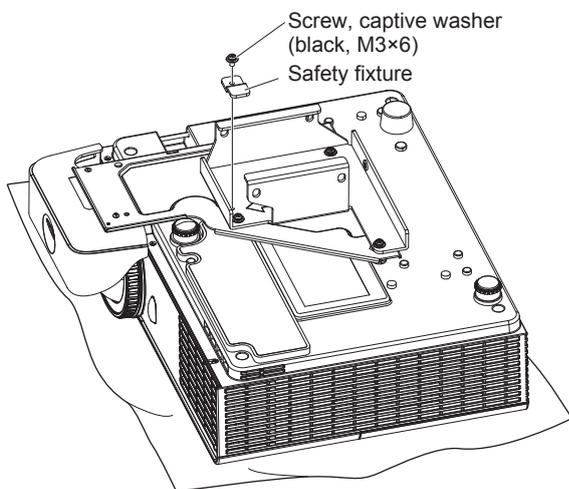
<When using the PT-TW331R / PT-TX301R >



- 1) Place the projector upside-down onto a piece of soft material.
- 2) Unscrew and remove the three captive washer screws that are securing the bracket.



- 3) Secure the projector mount bracket to the bracket surface at the bottom of the projector using the three captive washer screws that you removed, as illustrated on the left. (Do not use the three supplied captive washer screws (M3 × 8, silver).)



- 4) Secure the safety fixture to the projector mount bracket using a supplied captive washer screw (M3 × 6, black).

### Note

- Make sure the safety fixture is oriented properly before securing it.

## Installation (continued)

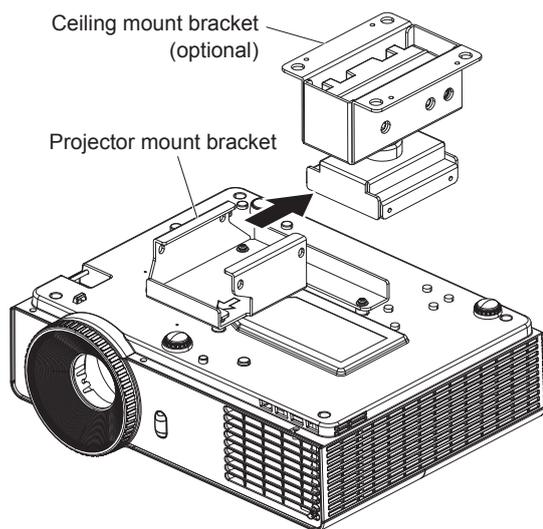
### Installing the projector to the ceiling mount bracket

Suspend the projector from the optional ceiling mount bracket (for low ceilings/for high ceilings) installed to the ceiling.

Ceiling mount bracket (for low ceilings): ET-PKV100S

Ceiling mount bracket (for high ceilings): ET-PKV100H

- 1) Install the projector mount bracket to which the projector body is attached to the ceiling mount bracket (optional) fixed to the ceiling by sliding as in the figure below.



#### Note

- The direction for attaching the projector mount bracket and ceiling mount bracket is not specified.

#### Attention

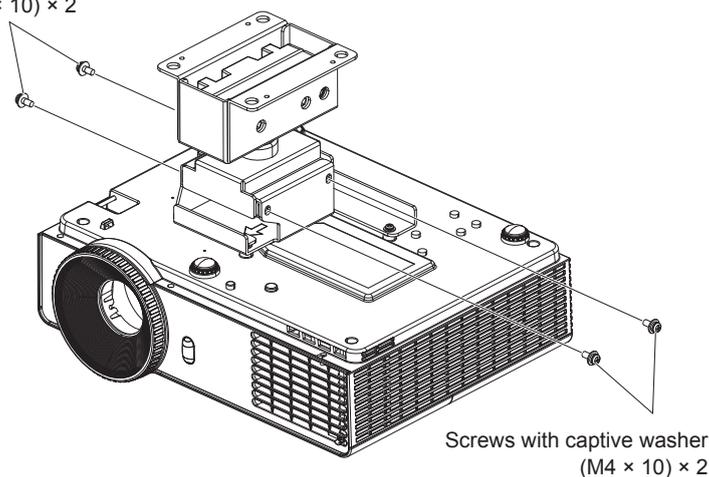
- Before installing the projector to the ceiling mount bracket, check if the angle adjusting screw of the ceiling mount bracket is secured and the ceiling mount bracket is fixed horizontally.
- After installing the projector mount bracket to the ceiling mount bracket, check if the ceiling mount bracket is fit into the projector mount bracket securely.

#### WARNING:

Mounting and installation must be carried out by two or more persons.

- 2) Secure the projector mount bracket to the ceiling mount bracket (optional) using the supplied four screws with captive washer (M4 × 10).

Screws with captive washer  
(M4 × 10) × 2



#### Note

- The figure shows an example when the ceiling mount bracket (for low ceilings) is used. Follow the same procedure when you use ceiling mount bracket (for high ceilings).

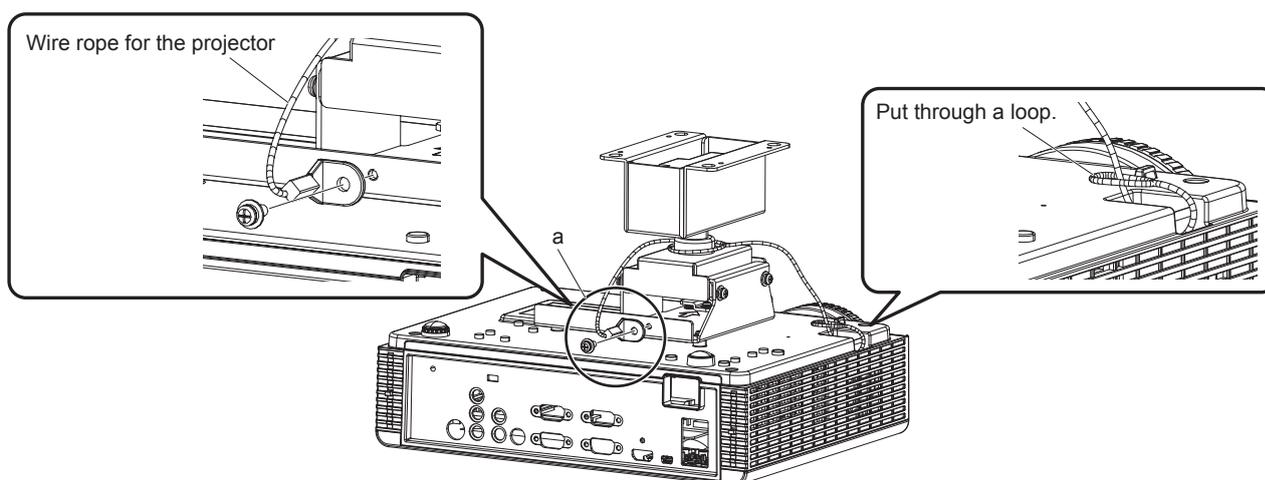
## Installation (continued)

### Attaching the projector drop prevention kit

Attach the wire rope to the projector (sold separately).

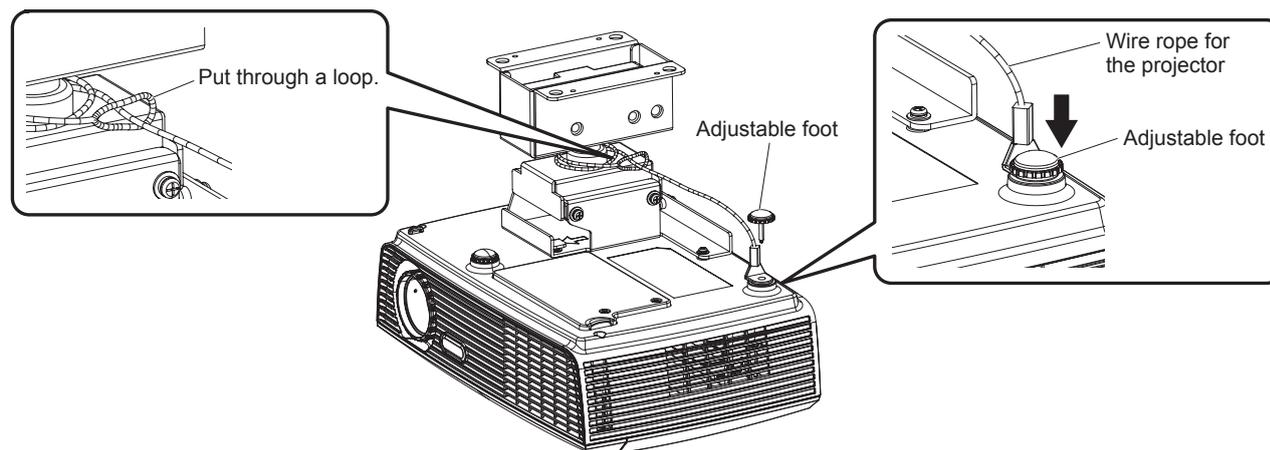
#### ■ When Using the PT-LW321 / PT-LW271 / PT-LX351 / PT-LX321 / PT-LX271 / PT-TW330 / PT-TW240 / PT-TX300/ PT-TW331R / PT-TX301R

- 1) Pull the end of the wire rope for the projector several times around the pole as illustrated below.
  - Reduce the slack as much as possible.
- 2) Secure the bracket at the front end of the wire rope for the projector to “a” on the projector using a captive washer screw (M4 × 10).



#### ■ When Using the PT-LX300 / PT-LX270

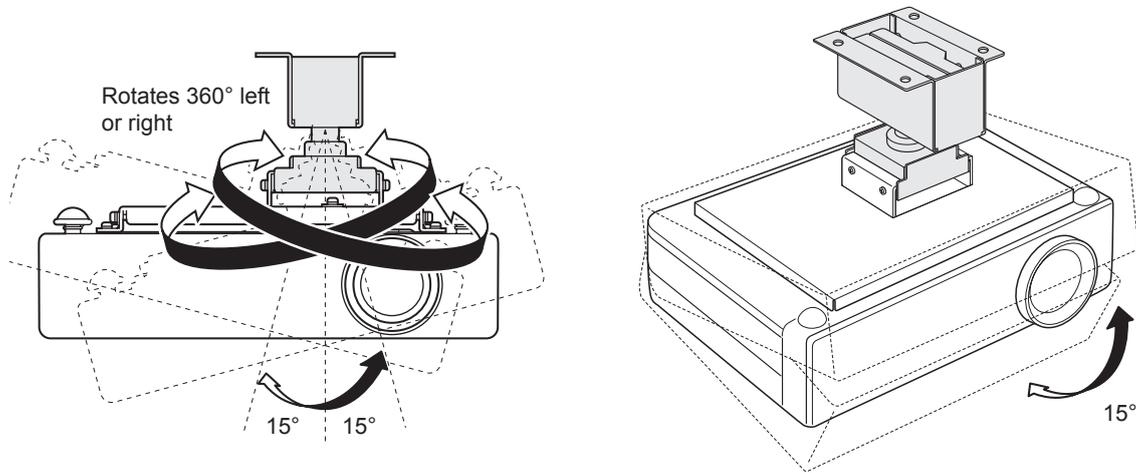
- 1) Remove an adjustable foot from the projector and place the end of the wire rope for the projector on the part for attaching the adjustable foot as illustrated below.
- 2) Secure the wire rope for the projector with the adjustable foot.



## Installation (continued)

### ■ Angle adjustment range

When this ceiling mount bracket is used, the projector can be tilted up to 15° forward, backward, left, and right, but the maximum tilt angle differs depending on the projector. Follow the instructions of the projector and make sure you do not exceed the maximum tilt angle.



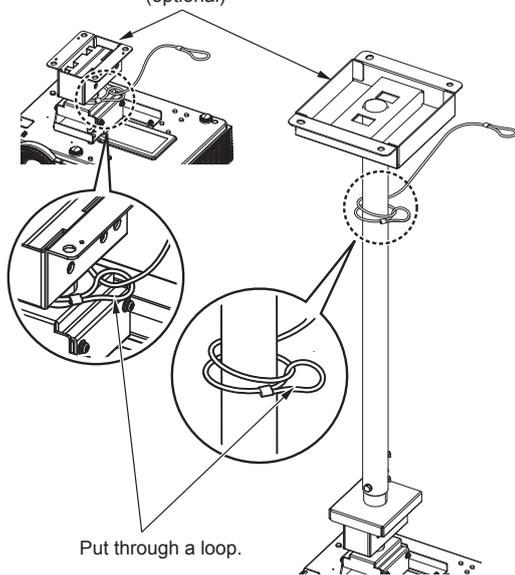
## Installing the ceiling mount bracket drop prevention kit to the ceiling

Attach the wire rope to the ceiling mount bracket and perform the installation work.

When using the ceiling mount bracket (for low ceilings)

When using the ceiling mount bracket (for high ceilings)

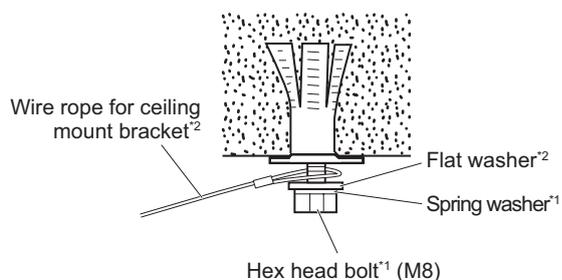
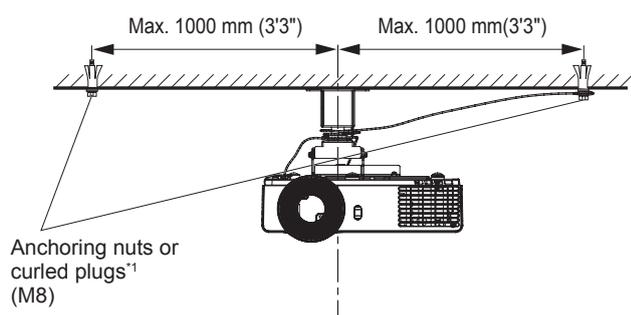
Ceiling mount bracket (optional)



### <Attaching the wire rope for ceiling mount bracket>

Pull one end of the wire rope for the ceiling mount bracket several times around the pole and then pass it through the loop at the other end as illustrated on the left.

## Installation (continued)



\*1: Commercially available product

\*2: Supplied with this product

### <Installation procedure>

This procedure uses the example of attachment to a concrete surface.

1) Mount the anchoring nuts or curled plugs (M8) in the stable ceiling surface (position illustrated on the left).

- When the installation location is a wooden structure, drill holes in a ceiling beam and then attach commercially available hanger bolts.

### Attention

- When mounting the anchoring nuts or curled plugs (M8) to the ceiling, be careful that there is no slack of the wire rope between the projector and the ceiling.
- If the wire rope for the ceiling mount bracket is too long, adjust the length by increasing the number of times it is wrapped around the pole.

2) Tighten the commercially available hex head bolt (M8) to the anchor, passing it through the commercially available spring washer (M8), the supplied flat washer (M8), and the ring of the end of the wire rope.

- If it is to be attached to a wooden surface, pass the loop at the end of the wire rope, a supplied flat washer (M8), and a commercially available spring washer (M8) through the attached ceiling bolt and fix with a commercially available hex nut (M8).

### Attention

- Be sure to use the wire rope and flat washer that are supplied with this product.
- Purchase the commercially available anchoring nut or curled plug, hex head bolt, and spring washer.

### Note

- For attaching the drop prevention kit to the projector, refer to page 17.

# Specifications

<b>External dimensions</b>	<b>Width: 126 mm (4-31/32"), Height: 40 mm (1-9/16"), Depth: 108 mm (4-1/4")</b>
<b>Weight</b>	<b>Approx. 0.3 kg (0.66 lbs.)</b>

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## Panasonic Corporation

Web Site : <https://panasonic.net/cns/projector/>  
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