

Portable Projector

NP06CM Ceiling Mount Unit

Installation and Adjustment Manual

Thank you for your purchase of the NEC Portable projector ceiling mount unit.
Please read this installation and adjustment manual carefully to ensure proper use.

**Special skills are required for the installation of the Portable projector.
This work should never be performed by the customer.**

To the Dealer and the Installer

For the safety of the customer, we ask that the installation work be started after careful attention is paid to the strength of the mounting location to be sure it will withstand the weight of the Portable projector and mounting hardware.

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NEC Display Solutions, Ltd.



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Heed the Following



This symbol alerts the user that important information concerning the operation and maintenance of this unit has been provided. The information should be read carefully to avoid problems.



WARNING

- When installing the projector, be sure to do so as explained in this manual. The projector may fall and cause injury if it is installed improperly.
- To prevent the projector from falling, install it in a place and fasten it in a way with sufficient strength to support the combined weight (21.6kg) of the projector (17.7kg) and the ceiling mount unit (3.9kg) for an extended period of time as well as to withstand earthquakes. Insufficient strength or fastening may result in the projector falling and causing injury.
- To ensure safety, be sure to tighten the bolts and screws securely. Also be sure to use the included brackets and other metal fittings. Failure to do so may result in the projector falling and causing injury.
- When sliding the opening of the mounting adapter over the pin of the ceiling attachment unit, check that the pin of the ceiling attachment unit is fully seated in the opening. If not, the projector may fall and cause injury.
- Do not modify any parts. Doing so may result in the projector falling and causing injury.
- Do not use broken parts. Doing so may result in the projector falling and causing injury. If a part should be broken, consult your dealer.
- Do not look into the lens when the projector is turned on. Doing so could damage your eyesight.
- Make adjustments as described in this manual. Incorrect adjustments may result in the projector falling and causing injury.



CAUTION

- Do not obstruct the projector's ventilation holes. Doing so will prevent the dissipation of heat and may result in fires. In particular, do not use the projector in the following ways:
Do not install the projector in a wall or in a tight place where ventilation is poor, place a cover it, etc.
- Do not install the projector in front of the outlets of an air conditioner or heater or in a place where vibrations are strong. Doing so may result in fires.
- Do not install the projector in humid or dusty places or exposed to smoke or steam (such as near cooking equipment or humidifiers). Doing so may result in fires.
- When installing the projector, leave sufficient space between it and surrounding objects. Failure to leave sufficient space will prevent the dissipation of heat and may result in fires.
- When removing the screws on left and right on the mounting adapter, be sure to support the projector while doing so. Failing to do so may result in the projector swinging back abruptly and causing injury.
- for PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.

Installation Precautions

- Special techniques are required for the installation work of the projector and installation work should only be undertaken by qualified and licenced installers.
- NEC Display Solutions will not accept any responsibility related to any accidents or incidents due to insufficient or inferior mounting techniques.

Installation Location

Avoid places of high temperature or low temperature.

(For ambient operating temperature, see the user's manual included with the projector.)

Avoid places exposed to direct sunlight and the vicinity of ventilation holes of room air conditioning and heating.

Avoid rooms with a lot of dust, humidity, greasy smoke, or tobacco smoke.

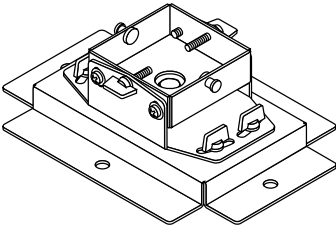
Dirt will adhere to optical parts such as lenses and mirrors and this will cause a deterioration of image quality.

Avoid places in which the screen is exposed to direct sunlight or illumination light.

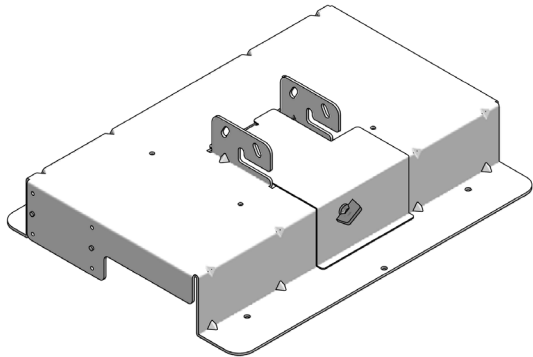
When surrounding light directly hits the screen, the image appears washed out and is difficult to view.

Preparation

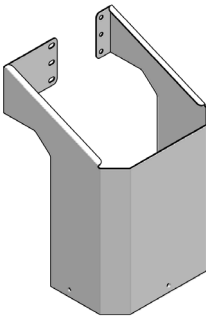
■ List of Packaged Parts



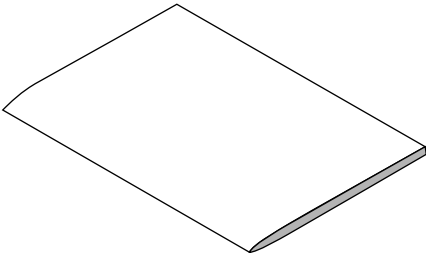
Fixed ceiling part...1



Projector mounting adapter...1



Terminal cover...1



Installation and adjustment manual...1



Projector mounting screws (long M4 screws) ...5



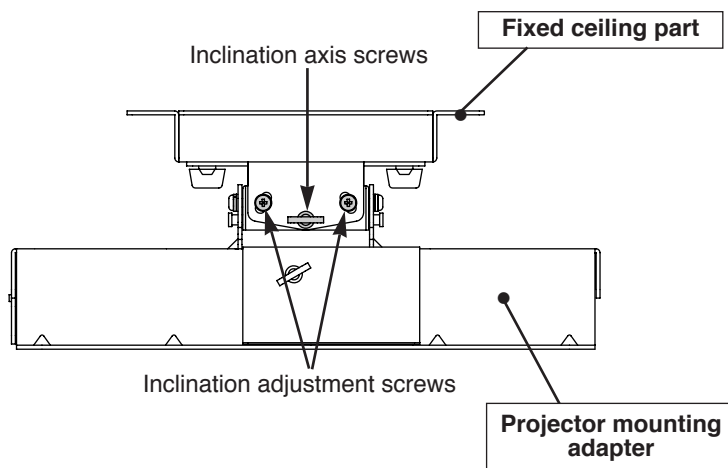
Terminal cover mounting screws (short M4 screws) ...4



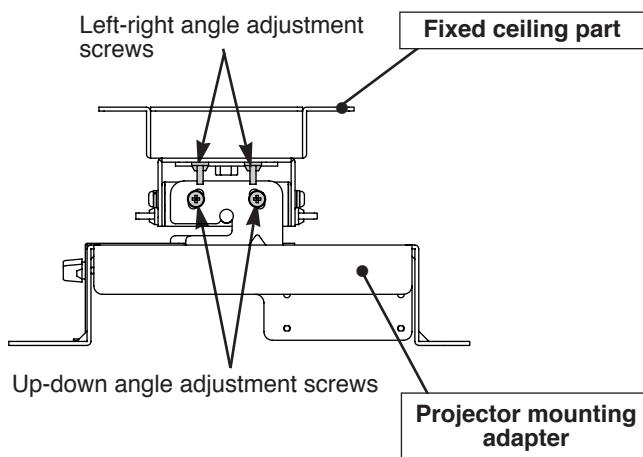
Up-down angle adjustment screws (M5) ...4

■ Names of the Parts

[Front view]

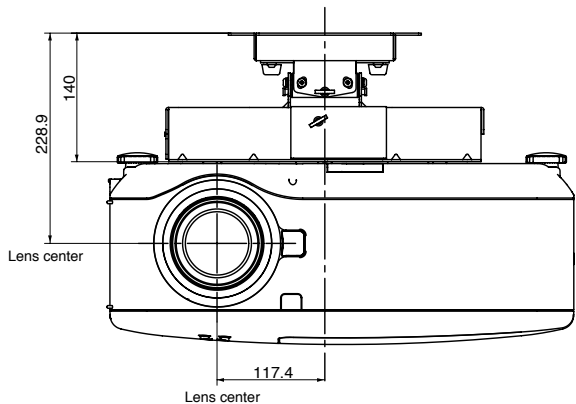


[Right side view]

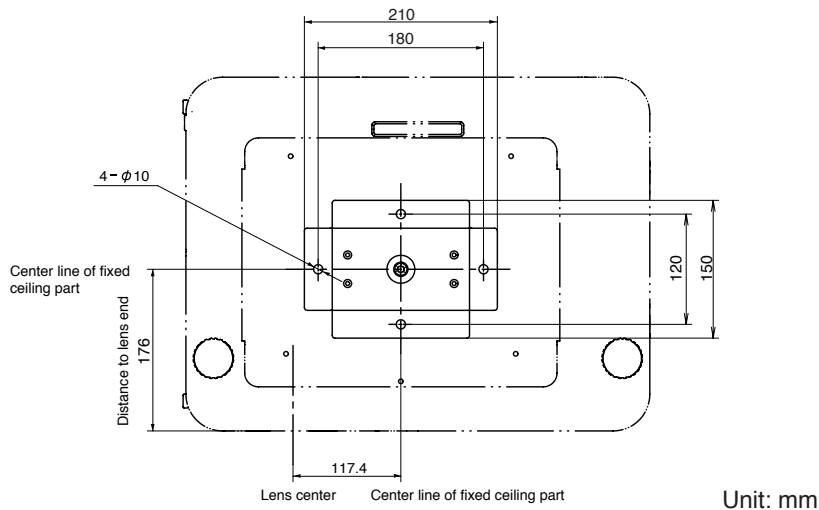


■ Dimensions

Fixed Ceiling Part and Lens Center Dimensions Diagram



Fixed Ceiling Part Bolt Hole Position Dimensions



Unit: mm

■ Guide to Screen Size and Projector Mounting Position

For the distance to the screen and the picture size, see the projector's operating instructions.

- The ceiling mount unit can be adjusted up and down a maximum of $\pm 10^\circ$, but if too much of an angle is taken the image will show some distortion. Therefore, it is recommended that an adjustment is made in conjunction with the screen projection angle.

Mounting the Projector

1 Attach the Fixed Ceiling Part to the Ceiling

First, partially tighten the four nuts, then tighten the nuts firmly after positioning.

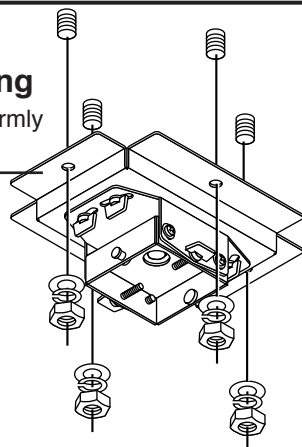


WARNING!

Use M8 bolts for the fixed ceiling part.

Use of types other than M8 could cause the projector to fall.

Fixed ceiling part



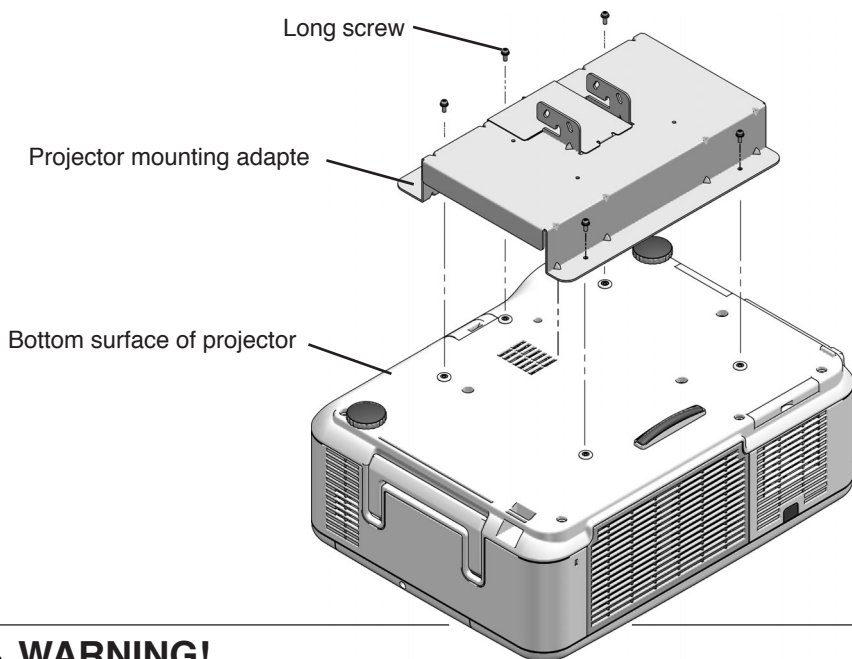
2 Attach the Projector Mounting Adapter to the Projector

Align the holes of the projector mounting adapter with the holes at the bottom surface of the projector, then securely tighten the five supplied (M4) screws.

Long screw

Projector mounting adapte

Bottom surface of projector



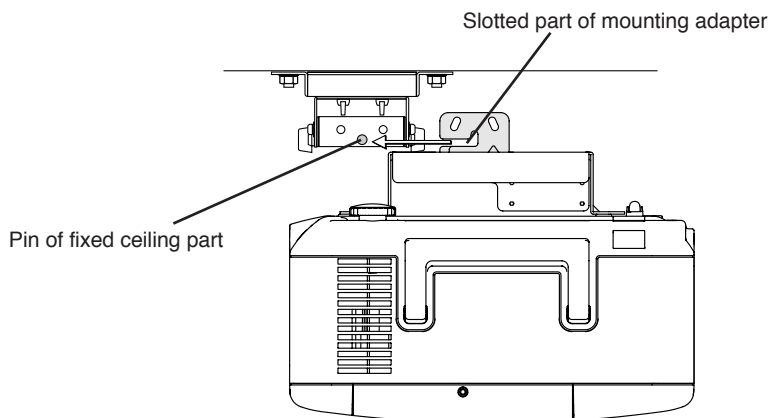
WARNING!

The use of screws other than those supplied for mounting purposes may cause the projector to be damaged or fall and cause injury. Please be sure to use the supplied screws.

3 Suspend the Projector from the Fixed Ceiling Part

Slide the slotted part of the projector mounting adapter over the pin of the fixed ceiling part and push all the way to the back.

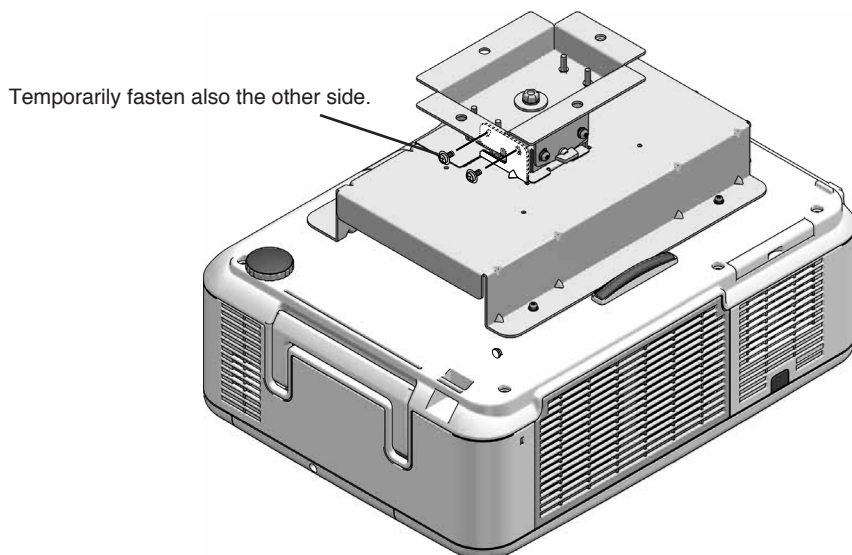
The projector is temporarily suspended in this condition and attention must be paid so that the unit does not fall since it is not fixed in place.



4 Temporarily Fasten the Projector Mounting Adapter

Temporarily fasten by partially tightening the four supplied (M5) screws.

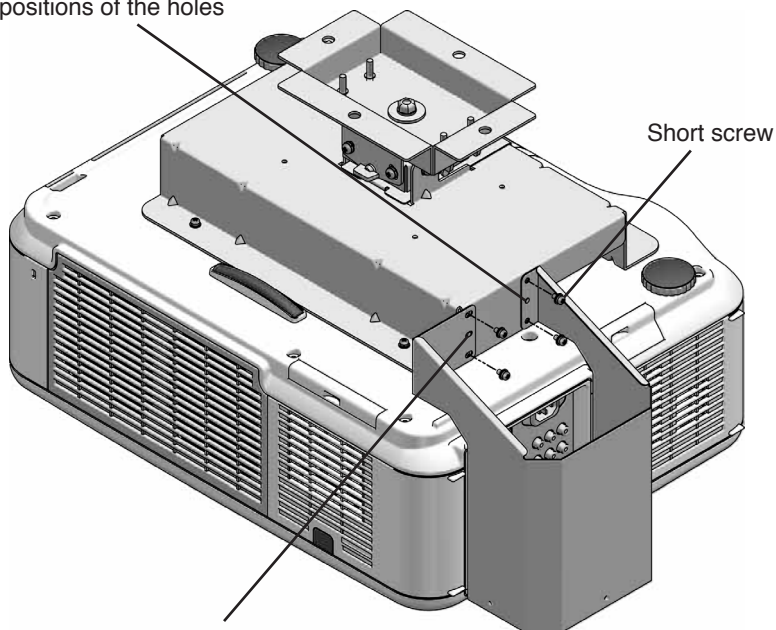
Tighten firmly after completing the screen projection angle adjustment.



5 After connecting all the cables, mount the terminal cover.

Line up the projecting parts of the projector mount adapter with the holes in the included terminal cover, and fasten securely using the four included screws (M4).

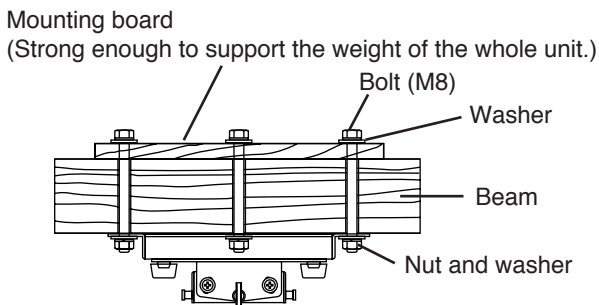
Line up the projecting parts with
the positions of the holes



Line up the projecting parts with
the positions of the holes

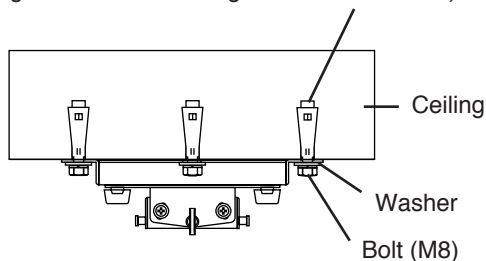
Installation Examples

When the Ceiling is Wood Construction:



When the Ceiling is Concrete Construction:

Anchor nut (Purchase commercially-available M8-type anchor nuts that are strong enough to endure the weight of the whole unit.)



NOTE : Mounting boards, M8-type anchor nuts, bolts, nuts and washers are commercially available.

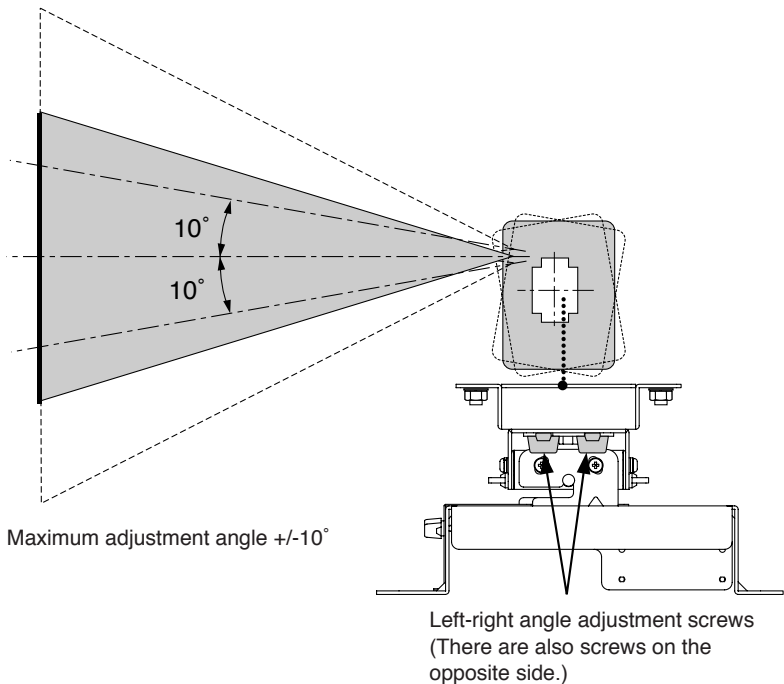
Adjustment of the Projection Angle

Before the Adjustment

- Refer to the user's manual of the projector, switch on the power and project an image.
- From the menu, select "Setup" → "Installation" → "Orientation" and select the projection orientation.
Select "Ceiling/Front" when projection is from the front side, and "Ceiling/Rear" when projection is from the rear side.
- Provisionally determine the projection size with the motorized zoom, then perform the angle adjustment.

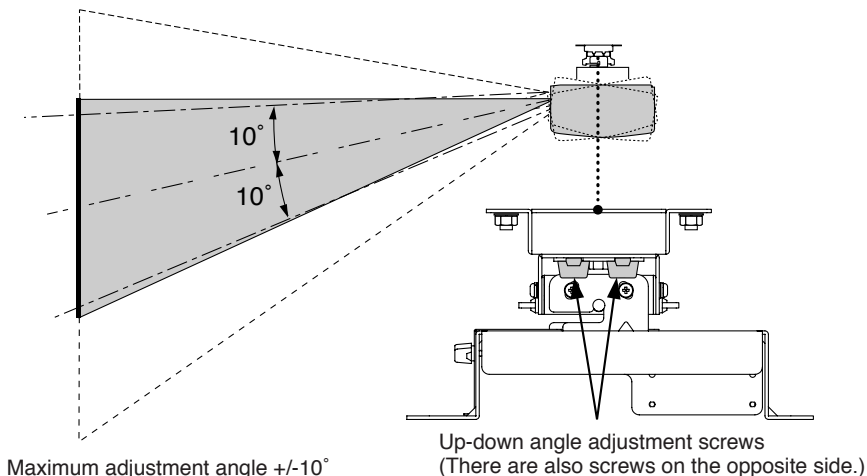
1 Adjust the Left-Right Angle

Adjust so that the left-right image is projected to the center of the screen, then securely tighten the four left-right angle adjustment screws.



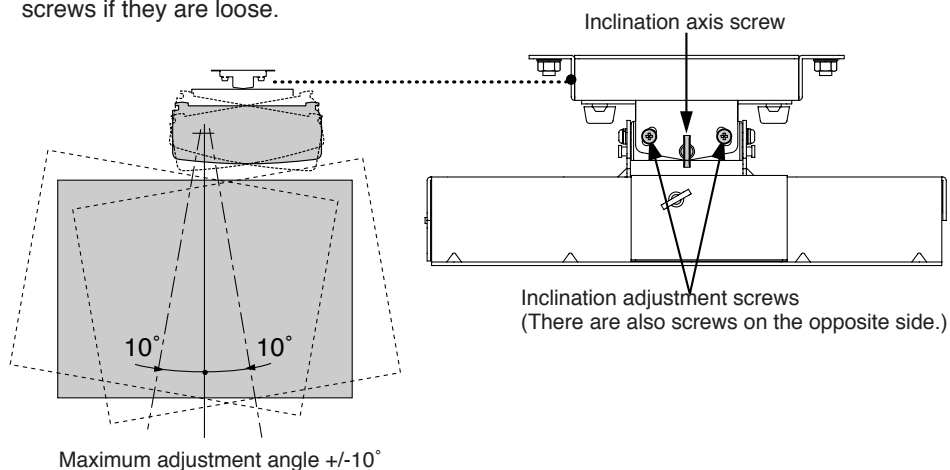
2 Adjust the Up-Down Angle

Adjust so that the north-south image is projected to the center of the screen, then securely tighten the four up-down angle adjustment screws.



3 Adjust the Inclination

Adjust so that the image is projected to the screen without being slanted, then firmly tighten the four inclination adjustment screws. Lastly, tighten the two inclination axis screws if they are loose.

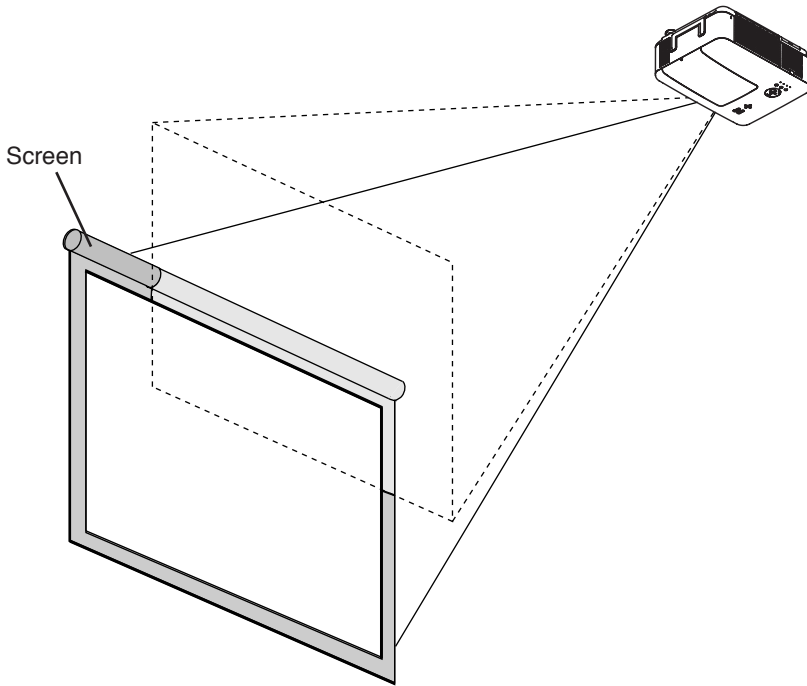


If the adjustment does not work out, readjust from Step 1.

After the adjustments, check that the parts are fixed securely.

4 Lens shift adjustment

Move the picture using the projector's lens shift function and adjust so that it fits on the screen.



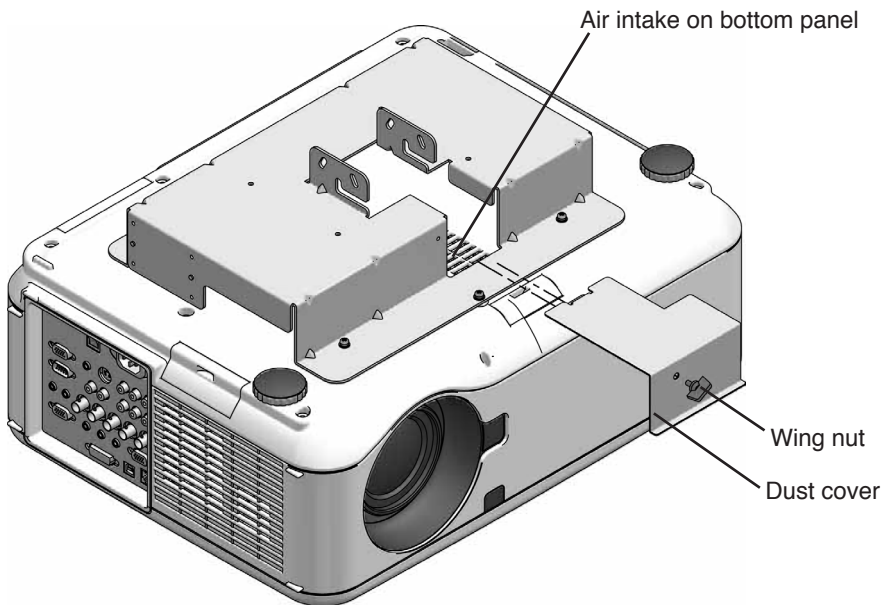
Cleaning the filter

To clean the filter of the air intake on the projector's bottom panel, remove the wing nut, then slide the dust cover and remove it.

Now insert the tip of a vacuum cleaner and vacuum over the air intake.

After cleaning the filter, set the dust cover back in its original position and tighten the wing nut.

- **Be sure to turn off the power when cleaning the filter.**
- **For details on filter cleaning, see the projector's user's manual.**



Specifications

Product Name	: Projector Ceiling Mount Unit
Model	: NP06CM
Adjustment angle	: Up-down angle +/-10° Left-right angle +/-10° Inclination angle +/-10°
Dimensions	: 497 (W) x 295 (D) x 310 (H) mm (when assembled)
Weight	: Approximately 3.9 kg
Supplied Items	: Projector mounting screws (M4) 5 Up-down angle adjustment screws (M5).....4 Terminal cover 1 Terminal cover mounting screws (M4) 4 Installation and adjustment manual 1

Specifications and design are subject to change without notice.

MEMO
