

Wall Mount Bracket YM-81

中文（简）

用户说明书

日本語

取扱説明書

English

User's Guide

Deutsch

Bedienungsanleitung

Français

Mode d'emploi

Русский

Инструкция по эксплуатации

Türkçe

Kullanım Kılavuzu

العربية

دليل المستخدم

Español

Italiano

Svenska

Português

Nederlands

Polski

Suomi

Česky

Norsk

Lietuvių

ไทย

Bahasa Indonesia

Bahasa Melayu

Tiếng Việt

中文(繁)

한국어

<http://world.casio.com/manual/projector/>

Wall Mount Bracket

YM-81

User's Guide

- Be sure to keep all user documentation handy for future reference.
- To obtain the latest version of this manual, visit the website at the URL below.
<http://world.casio.com/manual/projector/>

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This product provides wall mount bracket for CASIO Data Projectors.

- CASIO COMPUTER CO., LTD. shall not be held liable for any loss or lost profits due to any accidents or damages due to improper installation, defective assembly, or improper handling of this product.
- The illustrations shown in this manual are for demonstration purposes only and their contents may be different from the actual appearance of the product.
- The contents of this manual are subject to change without notice.

Safety Precautions

Thank you for selecting this CASIO product. Be sure to read these “Safety Precautions” before trying to use it. After reading this User’s Guide, keep it in a safe place for future reference.

About safety symbols

Various symbols are used in this User’s Guide and on the product itself to ensure safe use, and to protect you and others against the risk of injury and against material damage. The meaning of each of the symbols is explained below.

 Danger	This symbol indicates information that, if ignored or applied incorrectly, creates the risk of death or serious personal injury.
 Warning	This symbol indicates information that, if ignored or applied incorrectly, could possibly create the risk of death or serious personal injury.
 Caution	This symbol indicates information that, if ignored or applied incorrectly, could possibly create the risk of personal injury or material damage.

Icon Examples



A triangle indicates a situation against which you need to exercise caution. The example shown here indicates you should take precaution against electric shock.



A circle with a line through it indicates information about an action that you should not perform. The specific action is indicated by the figure inside the circle. The example shown here means disassembly is prohibited.



A black circle indicates information about an action that you must perform. The specific action is indicated by the figure inside the circle. The example shown here indicates you must unplug the power cord from the power outlet.

Warning



This Projector System is sold under the assumption that installation will be performed by specialists who possess an adequate level of technological experiences and knowledge. This product must be installed by trained specialists. Installation by non-specialists creates the risk of the bracket and projector falling down and other problems.



Improper assembly creates the risk of the bracket and projector falling down and other problems. Make sure that you always observe the precautions below.

- Be sure to check that the installation provides sufficient strength and make sure everything is assembled correctly.
- Be sure to tighten all screws fully and securely.



This product and the projector it supports weigh approximately 13 kilograms (28.7 lbs). During installation, be sure to take the actions described below.

- Calculate the allowable load of all anchors and bolts being used for installation.
- Avoid subjecting the projector to undue force when installing it.



Make sure that the projector is grounded during use.

Operating Precautions

Warning

-  This product does not have rotary angle adjustment. After adjusting the elevation and angle, never rotate the projector while the screws are tightened. After installation is complete, leave all elevation and angle adjustments up to qualified specialists. Adjustment by non-specialists creates the risk of the bracket and projector falling down.
- After the Projector System is installed, never loosen any of its bolts, screws, or nuts. Adjustment by non-specialists creates the risk of the bracket and projector falling down.
- Should you ever notice any part or component has fallen from the bracket/projector, immediately check the installation.
- Never allow anything to be hung from the bracket. Doing so creates the risk of the bracket and projector falling down and other problems.
- After installation is complete, leave all maintenance work up to qualified specialists.
- For information about projector maintenance, see the projector user's guide.
- Do not place heavy objects on the projector or wall mount bracket, and do not allow anyone to climb onto them.
- Make sure that the installation does not result in blocking of the projector's intake and exhaust vents. Periodically check the projector to ensure that its intake and exhaust vents are not clogged by dust build-up. Should dust build up, clean the vents before using the projector.
- When installing up and adjusting the wall mount bracket, take care to avoid pinching your hands between metal parts.
- Never use any type of screws except for those that are specified. Use of non-specified screws creates the risk of the projector falling down and other problems.
- Never try to modify the wall mount bracket in any way. (The strength of modified bracket cannot be guaranteed.)

Installation Location Precautions

- Never install this product in any of the types of locations below.
 - Areas subject to high or low temperatures
 - Outdoors
 - Areas subject to strong vibration
 - Food preparation areas and other locations where there is the chance of contact with oil smoke, and areas where there are large amounts of tobacco smoke present.
 - Areas subject to high moisture
 - Bathrooms and other areas where the projector may become wet
 - On an unstable and/or slanted surface
 - In the vicinity of the entrance to a retail location (Where there is the risk of exposure to rain.)
- When installing a projector, keep it away from fluorescent lighting, air conditioning, and other electrical devices. Some fluorescent lighting can interfere with operation of the projector's remote control system.
- Make sure that the projector's power key is located in a position where it can be used to turn off the projector in order recover from projector operation errors, to protect internal circuitry, and to save energy.
- In order to ensure noise-free projection images, use of a cable no more than 10 meters long is recommended when connecting a computer or other device. Also, keep the connecting cable away from the AC cord.
- In order to avoid soiling of the lens and internal light source, install the projector in a location where there is little chance of exposure to dust and moisture.
- When direct sunlight is shining into the room, the projection image can be made easier to see by drawing curtains over windows.
- Light and heat emitted by the projector may cause discoloration of its surroundings.
- Avoid mounting at a height that allows the projector to be touched by people. If a relatively low installation position is unavoidable, take care to install in a way that avoids head and other injury.
- Make sure that the projection side of the projector is at least 6 cm (2.4 inches) from the projection surface (wall), and all other sides are at least 30 cm (11.8 inches) from surrounding surfaces. There should be no other objects within the above distances from the projector.

Operating Precautions

Concrete



- When mounting on a concrete wall, use appropriate components (M10 nuts, bolts, etc.) to support the weight of the projector and bracket, and to prevent lateral sway. Adjustment by non-specialists creates the risk of the bracket and projector falling down.
- CASIO COMPUTER CO., LTD. shall be held in no way liable for any losses due to the bracket and/or projector falling down due to the use of installation components of insufficient strength.

Plaster and Similar Material

- When anchoring the bracket on a wall made of plaster or other low-strength material, drive anchor bolts into the concrete under the wall.
- Install using anchor bolts in at least eight locations.

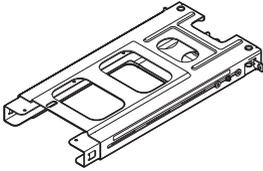
Recommendations for Wall Installation

In order to ensure a high level of safety for wall installation, the CASIO Data Projector wall mount bracket comes with wire to prevent dropping.

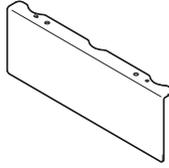
When installing the projector, be sure to have the wire attached to the projector and bracket.

Unpacking

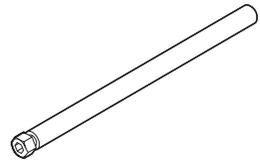
- As you unpack the product, check to make sure that all of the items listed below are present.
- Values in brackets (< >) indicate quantities.



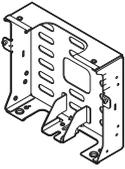
Arm unit <1>



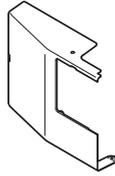
Middle wall anchor plate cover <1>



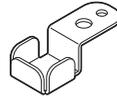
M10x152mm arm vertical adjustment screw <1>



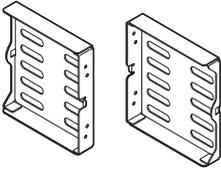
Middle wall anchor plate <1>



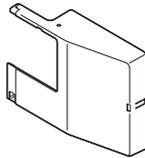
Left wall anchor plate cover <1>



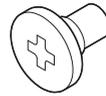
Arm screw covers <2>



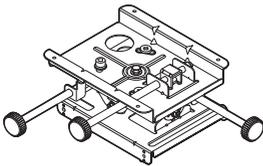
Left and right wall anchor plates <2>



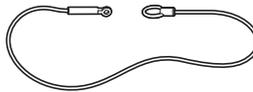
Right wall anchor plate cover <1>



M5x8mm shoulder screws <3>



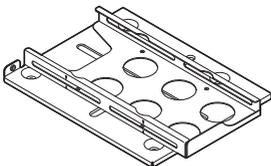
Adjuster unit <1>



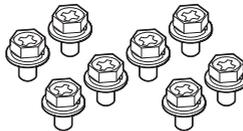
Safety wire <1>



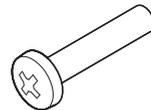
Hex wrench <1>



Bracket (with projector anchor plate) <1>

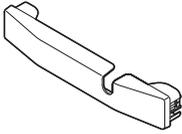


M4x8mm hex head screws <22>

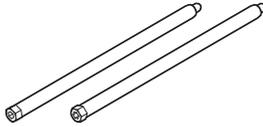


M4x20mm screw <1>

Unpacking



Arm cover <1>



M10×194mm arm screws <2>

- Positioning sheet <1>
- User's Guide (This Manual) <1>

Items that need to be prepared by you

- Anchor bolts (M10 – at least 8)
- Screwdriver

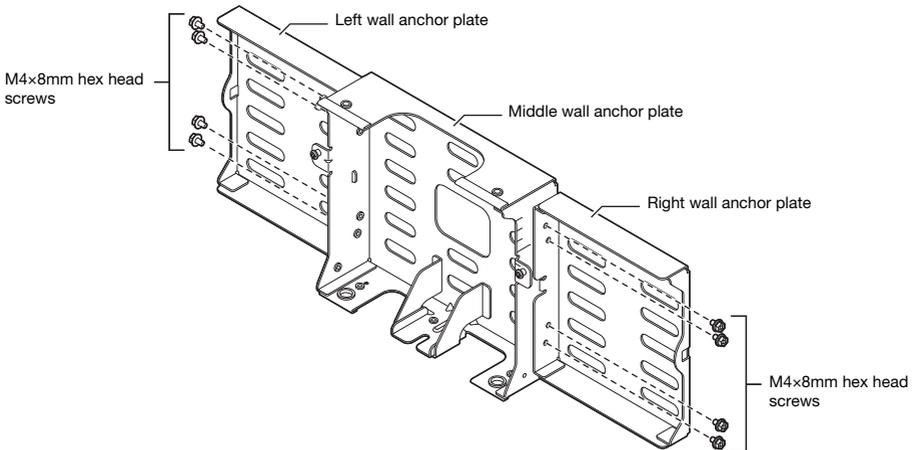
Installing the Wall Mount Bracket

Precautions During Installation

- Be sure to follow the procedures in this manual to ensure that installation work is performed correctly. Make sure that screws, metal parts, and all other components are all installed securely.
- Check to make sure that the wall where the bracket is to be installed can support the weight of the bracket, and arrange for installation plans and installation work.
- Before starting installation work, make sure that the projector is turned off and that its power cord is unplugged.
- Take care to avoid dropping the projector.
- Take care when handling small components. Small components can be swallowed by children or pets. Should this happen, contact a physician immediately.
- Improperly tightened screws can cause the case to crack and the projector to fall, creating the risk of accident and personal injury. Do not use any thread locking adhesive, lubricant, oil, or other similar agents on the screws that anchor the projector to the wall.
- After installation and adjustment are complete, check all screws to ensure that they are properly tightened. Take care that screws are not loose and also avoid over-tightening them.
- After installation is complete, store this manual and other items that come with the bracket in a safe place.

1. Assemble the wall anchor plates and attach them to the wall.

1. Affix the left and right wall anchor plates to the middle wall anchor plate using eight M4×8mm hex head screws.



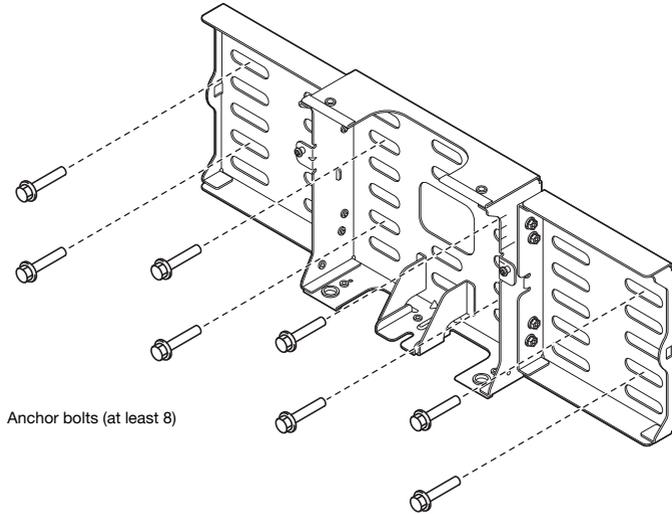
2. Referring to “Screen Size and Wall Anchor Plate Mounting Dimension Diagram” (page EN-9), determine the installation position.
3. Referring to “Positioning the Installation Holes of the Wall Anchor Plates” (page EN-10), drill holes in the wall.

Installing the Wall Mount Bracket

4. Use the anchor bolts to attach the anchor plates to the wall.
- Securely attach the anchor plates to the wall using at least eight anchor bolts: at least four for the middle wall anchor plate, and at least two each for the left and right wall anchor plate.

Important!

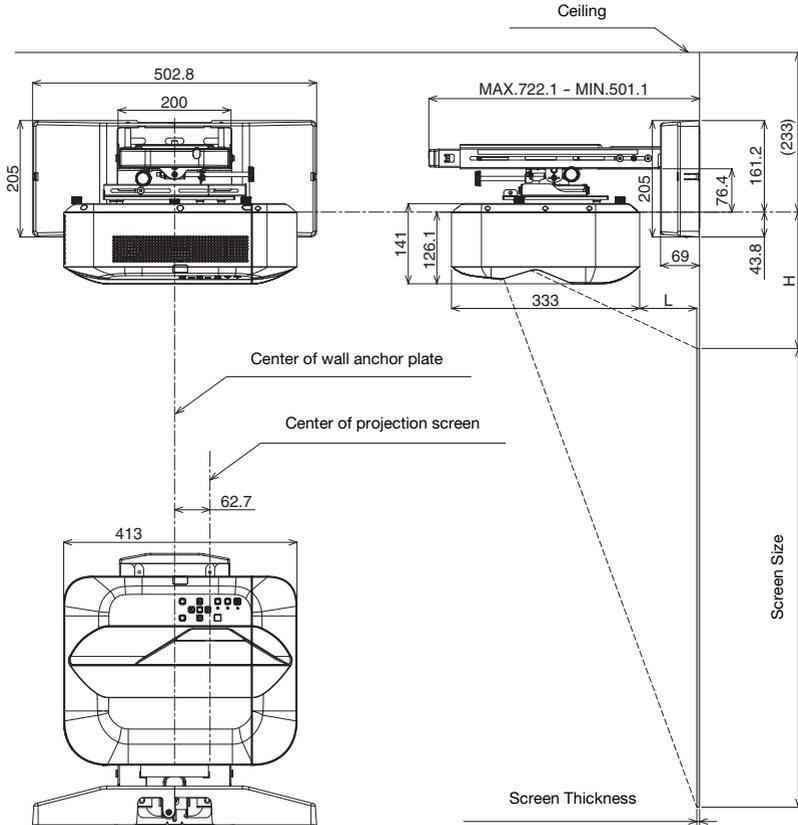
- With a projector installed, this product weighs approximately 13 kilograms (28.7 lbs). When attaching this product to a wall, carefully consider pull out strength and installation strength. If greater strength is required, increase the number of anchor bolts used for attachment.



Installing the Wall Mount Bracket

Screen Size and Wall Anchor Plate Mounting Dimension Diagram

Unit : mm



Screen Size (inch)	WXGA		XGA	
	L (mm/inch)	H (mm/inch)	L (mm/inch)	H (mm/inch)
50	- / -	- / -	121 / 4.8	253 / 10.0
60	128 / 5.0	240 / 9.4	202 / 8.0	288 / 11.3
70	197 / 7.8	267 / 10.5	285 / 11.2	323 / 12.7
80	267 / 10.5	294 / 11.6	366 / 14.4	358 / 14.1
90	336 / 13.2	322 / 12.7	444 / 17.5	393 / 15.5
100	404 / 15.9	348 / 13.7	- / -	- / -
110	469 / 18.5	374 / 14.7	- / -	- / -

● Distance values above are only for reference during installation.

Installing the Wall Mount Bracket

Positioning the Installation Holes of the Wall Anchor Plates

- Align the marks on the upper edges of the projection screen printed on the positioning sheet with the upper edges of the projection screen.
 - The scales on either side of the positioning sheet indicate millimeter units.
- Align the positioning sheet with the center of the projection screen.
 - Position the center of the wall anchor plate 62.7 mm (2.5 inches) to the right of the center of the projection screen.
- Drill holes in the wall in accordance with the image on the positioning sheet.

YM-81 Positioning Template

CASIO®

1. As shown in the illustrations below, you need to determine the adjuster unit installation location on the inner arm in accordance with your projector's resolution (WXGA or XGA) and the desired projection size.

Resolution / 投影サイズ / Screen Size	調整部 / Adjuster Unit
WXGA 80~110型(inch)	WXGA 60~70型(inch)
XGA 70~90型(inch)	XGA 50~60型(inch)

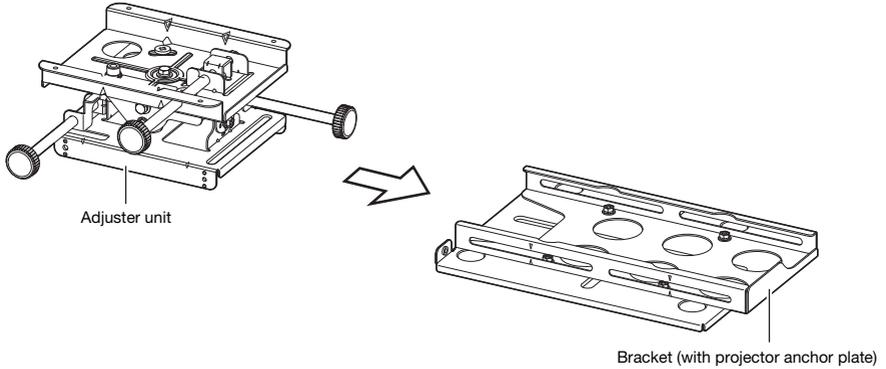
※プロジェクターが先端より、最大97mmはみ出る場合があります。
The front of the projector may come before the front

Screen Size (mm/inch)	WXGA Aspect Ratio:Full(16:10)		XGA Aspect Ratio:Full(4:3)	
	L (mm / inch)	H (mm / inch)	L (mm / inch)	H (mm / inch)
60	128 / 5,2	240 / 9,8	50	121 / 4,9
70	197 / 8,0	267 / 10,9	60	202 / 8,2
80	267 / 10,9	294 / 12,0	70	285 / 11,6
90	336 / 13,7	321 / 13,1	80	366 / 14,9
100	404 / 16,5	348 / 14,2	90	444 / 18,1
110	469 / 18,1	374 / 15,3		

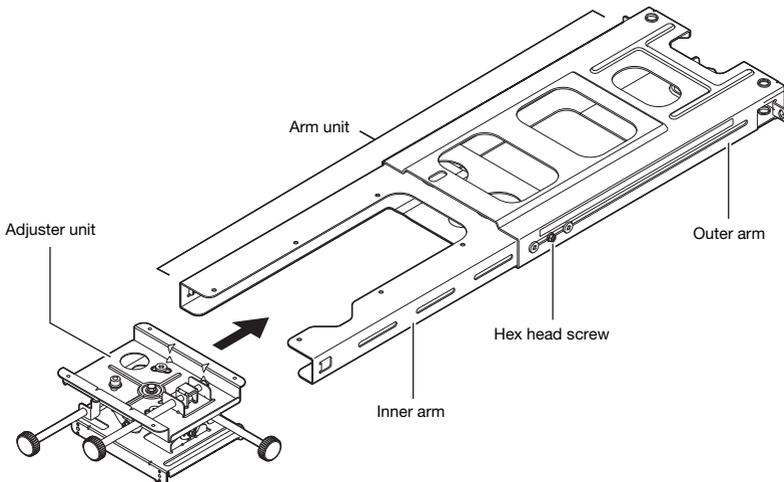
2. Install the adjuster unit onto the arm unit.

1. Remove the bracket from the adjuster unit.

- The adjuster unit is packed with the bracket attached. Remove the bracket as shown in the illustration.



- ### 2. Loosen the arm unit hex head screw indicated in the illustration and then pull out the inner arm. Next, orient the adjuster unit as shown in the illustration and insert it into the inner arm.

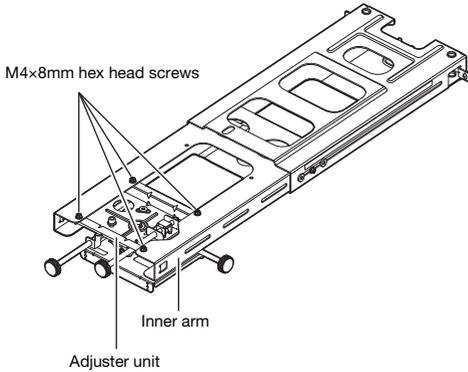


Installing the Wall Mount Bracket

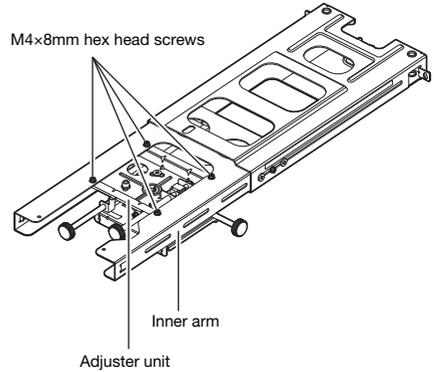
- Secure the adjuster unit to the inner arm using four M4×8mm hex head screws.

Important!

- As shown in the illustrations below, you need to determine the adjuster unit installation location on the inner arm in accordance with your projector's resolution (WXGA or XGA) and the desired projection size.



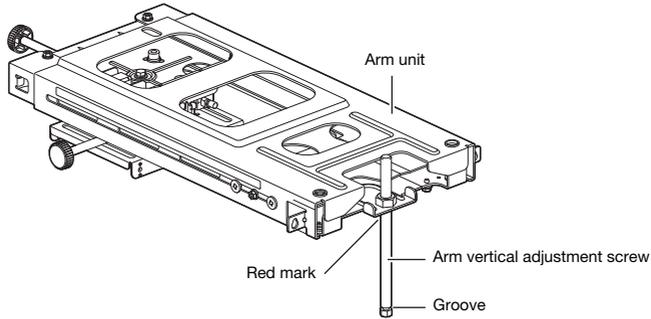
WXGA: 80-inch or larger projection size
XGA: 70-inch or larger projection size



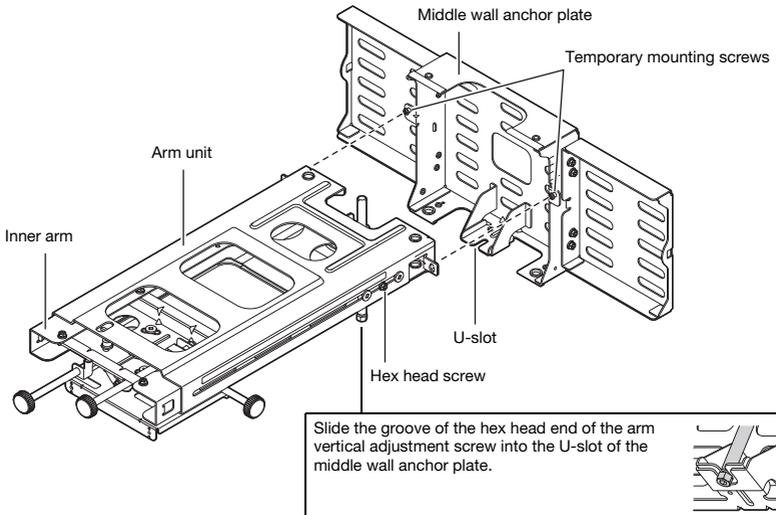
WXGA: 70-inch or smaller projection size
XGA: 60-inch or smaller projection size

3. Install the arm unit on the wall anchor plates.

1. Insert the M10×152mm arm vertical adjustment screw into the hole of the arm unit.
 - Align the red mark of the adjustment screw as shown in the illustration.



2. Temporarily hook the arm unit onto the two screws of the middle wall anchor plate. You do not need to tighten the screws.

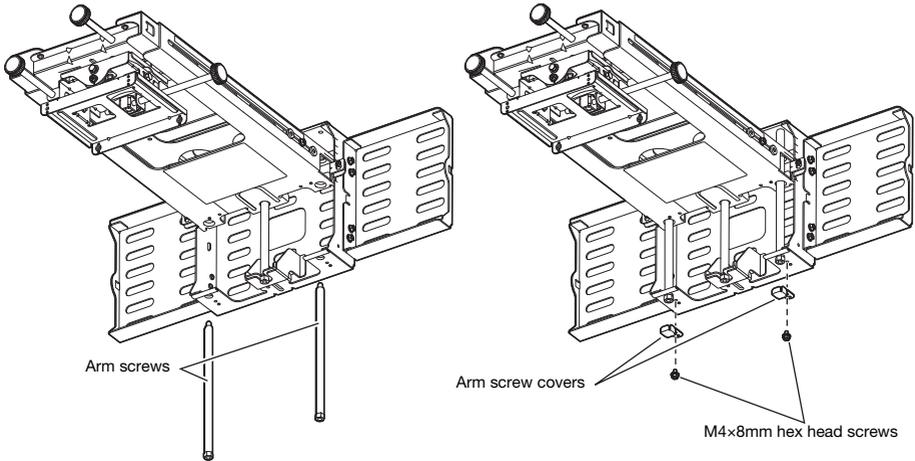


Important!

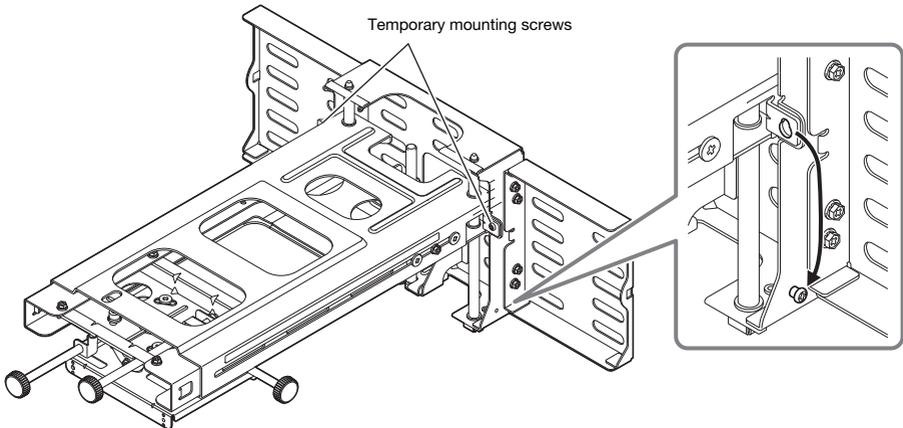
- Note that if the hex head screw of the arm unit is loose, the inner arm will tend to move too easily.

Installing the Wall Mount Bracket

3. Insert the two M10×194mm arm screws into the holes in the middle wall anchor plate, and then tighten the screws with the provided hex wrench.
4. Secure the two arm screw covers with the M4×8mm hex head screws.

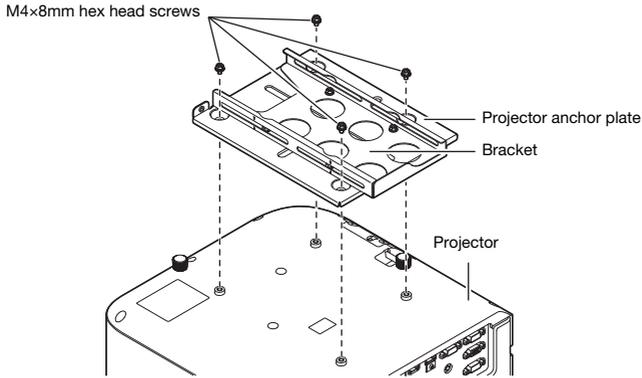


5. Remove the temporary mounting screws that you hooked the arm onto in step 2 of this procedure, and then install them in the appropriate locations on the sides of the middle wall anchor plate.



4. Install the projector.

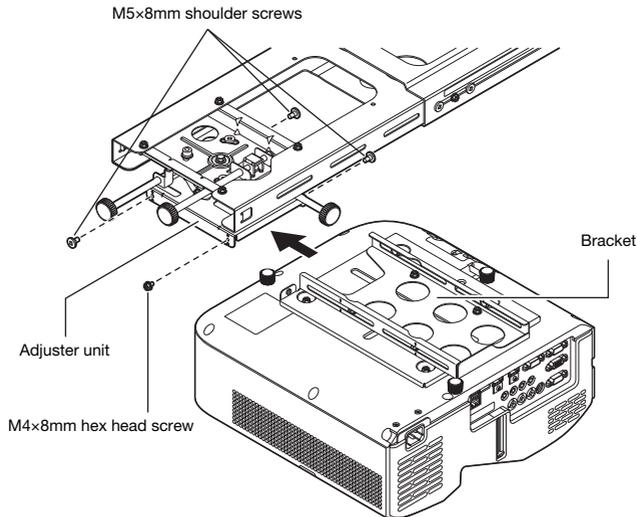
1. Attach anchor plate to the projector using four M4×8mm hex head screws.



2. Slide the bracket into the adjuster unit and secure it in place using the screws specified in the illustration.

Important!

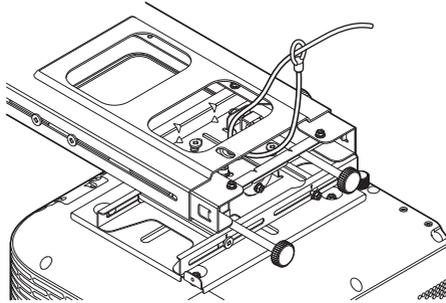
- Note that you should use the three M5×8mm shoulder screws and one M4×8mm hex head screw to secure the bracket. Take care that you install the screws in their proper locations.



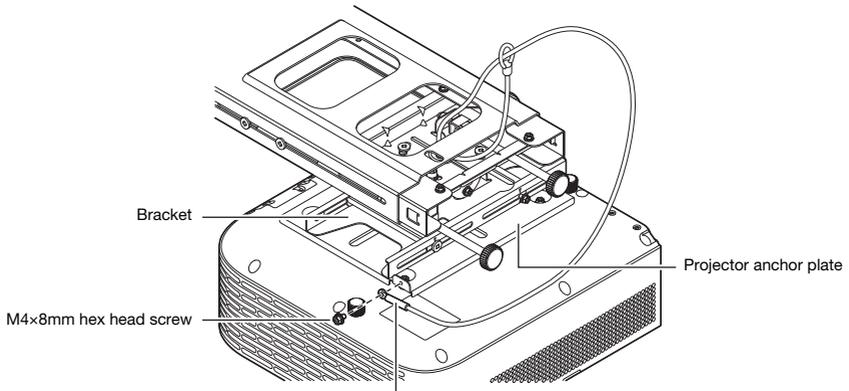
Installing the Wall Mount Bracket

5. Attach the safety wire.

1. Pass the safety wire through the outer arm of the arm unit as shown in the illustration.

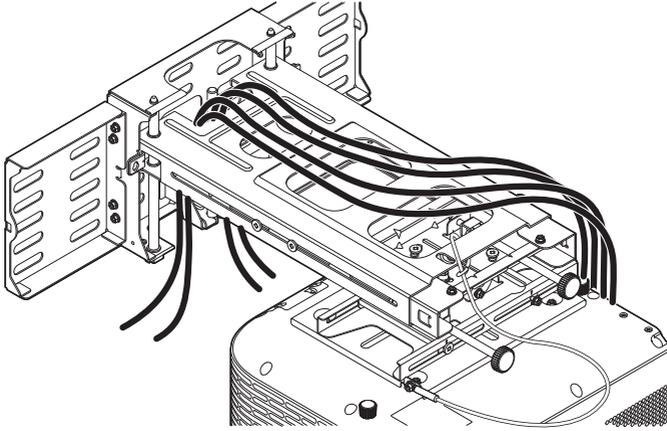


2. Use an M4×8mm hex head screw to secure the safety wire to the projector anchor plate.



6. Connect the cables to the projector.

1. Pass the cables to be connected to the projector through the arm hole as shown in the illustration.



- If you want to run cables along the top of the arm instead of the bottom, install the left and right wall anchor plate covers (page EN-26) and then run the cables through the openings in the top of the covers.
2. Refer to the projector's User's Guide for information about how to connect power and external equipment cables.

Adjusting the Position, Elevation, and Angle

Important!

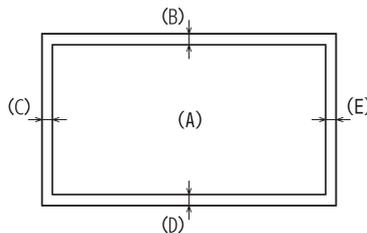


- Firmly support the projector from below whenever adjusting the elevation and/or angle. After adjustment is complete, re-tighten all of the screws. Installation by non-specialists creates the risk of the bracket and projector falling down and other problems.
- Unless specifically instructed otherwise, adjustment should be performed with the projector in its initial factory default state. Adjustments will be affected if you have changed the keystone correction or other settings.
- For information about projector operation, see the projector's User's Guide.

Precautions when Adjusting the Projection Screen

- Project onto a board type screen or other suitable flat, even surface. Projecting onto a roll type screen or other uneven surface is not recommended because doing so will cause distortion of the projected image. Use of a wide viewing angle screen (matte type) is recommended. A bead type screen is not suitable due to its high screen gain.
- First adjust focus. Next, adjust the screen position and angle. Adjusting focus changes the size of the projected image.
- The projected image position and/or focus may change slightly as operation stabilizes during the first 30 minutes after the projector is turned on, or after there is a change in the ambient temperature, humidity, or other environmental conditions. If this happens, refocus.
- To allow for any changes that may be required after the projector is set up, configure the initial setup so the projected image is a bit smaller than the size of the screen being used.
- For some time after installation, vibration of wall mount hardware and/or the mirror or other internal projector components may cause the position of the projector to shift. To allow for this, and for any fluctuation due to an uneven projection surface, set up the projector with margins around the projected image as shown in the illustration below.

Screen size (A) (inches)	Upper and lower margins (B) (D) (mm / inches)	Left and right margins (C) (E) (mm / inches)
60	20 / 0.8	25 / 1
80	25 / 1	30 / 1.2
100	30 / 1.2	35 / 1.4



1. Start adjustment.

1. Turn on the projector.

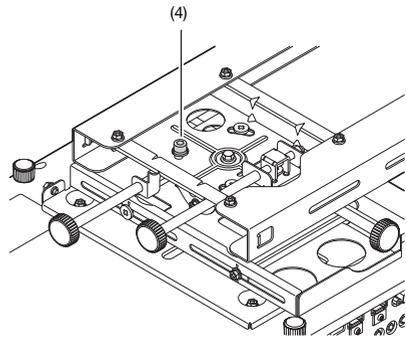
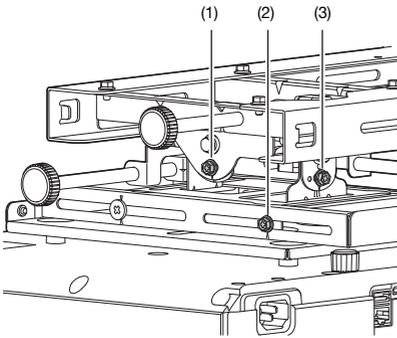
- If the projector is in its initial factory default setup, it will project a blue screen (when there is no input signal). Projection of a test pattern is recommended, if possible. For more information, refer to the projector's User's Guide.

Important!

- Take care to keep your hands away from the area around the projector's exhaust vents while the projector is turned on. The locations of exhaust vents depend on the projector model. For information about your projector operation, refer to its User's Guide.

2. To begin adjustment, loosen the four screws shown in the illustration.

- Use the included hex wrench to loosen Screw (4).

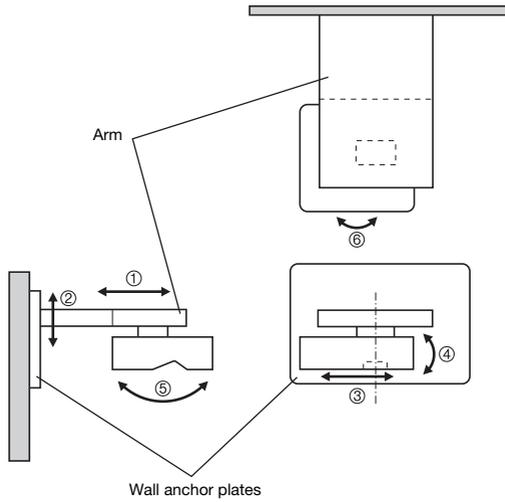


Adjusting the Position, Elevation, and Angle

2. Adjust the projected image.

While monitoring the projected image, make the adjustments listed below.

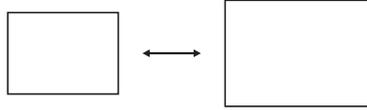
- ① Projected image size
- ② Projected image vertical position
- ③ Projected image horizontal position
- ④ Projected image horizontal tilt
- ⑤ Projected image vertical keystoneing
- ⑥ Projected image horizontal keystoneing



Adjusting the Position, Elevation, and Angle

① Projected image size adjustment

Adjustment range:
WXGA: 60 to 110 inches
XGA: 50 to 90 inches



1. Slide the arm forward or back to adjust the size of the projected image.

- While checking the applicable scale on the side of the arm unit, slide the arm forward or back.

WXGA: 80-inch or larger projection size
XGA: 70-inch or larger projection size

WXGA: 70-inch or smaller projection size
XGA: 60-inch or smaller projection size

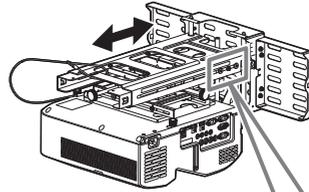
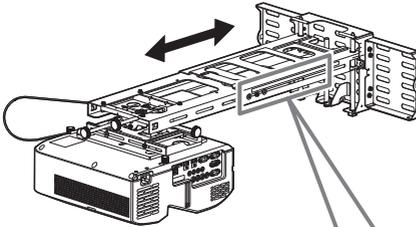
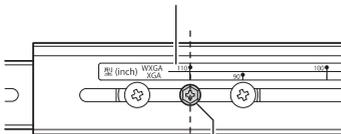
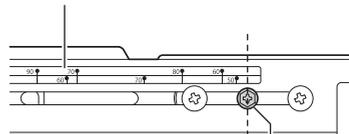


Image Size Scale
Upper: WXGA (red)
Lower: XGA (green)



Hex head screw

Image Size Scale
Upper: WXGA (black)
Lower: XGA (black)



Hex head screw

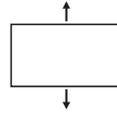
2. Adjust the focus.

- Adjusting the focus can cause the projected image size to change. Adjust the size and focus as required.

Adjusting the Position, Elevation, and Angle

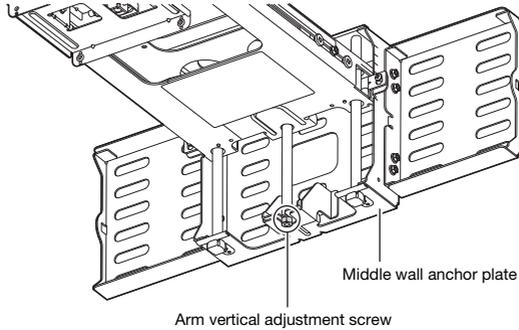
② Projected image vertical position adjustment

Adjustment range: ± 35 mm (1.4 inches)



Use the included hex wrench to rotate the arm vertical adjustment screw.

- When viewed from the bottom of the middle wall anchor plate, rotating the screw clockwise lowers the arm position, while counterclockwise rotation raises it.

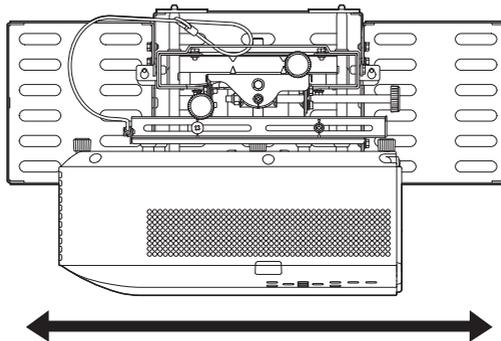


③ Projected image horizontal position adjustment

Adjustment range: ± 50 mm (2.0 inches)



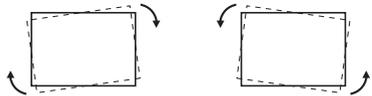
Slide the projector to the left or right as required.



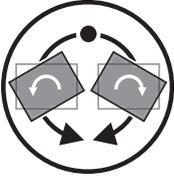
Adjusting the Position, Elevation, and Angle

④ Projected image horizontal tilt adjustment

Adjustment range: $\pm 5^\circ$



Rotate the red adjustment knob.

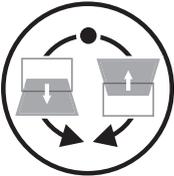


⑤ Projected image vertical keystoneing adjustment

Adjustment range: $\pm 5^\circ$

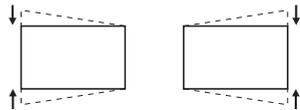


Rotate the blue adjustment knob.

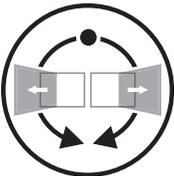


⑥ Projected image horizontal keystoneing adjustment

Adjustment range: $\pm 5^\circ$



Rotate the green adjustment knob.

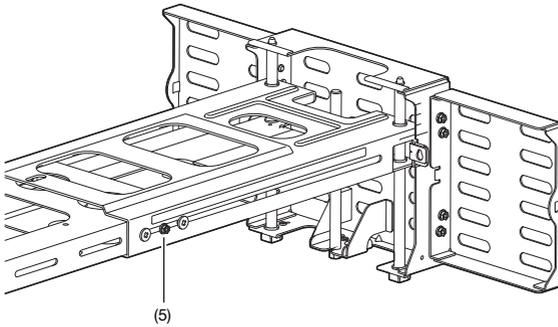
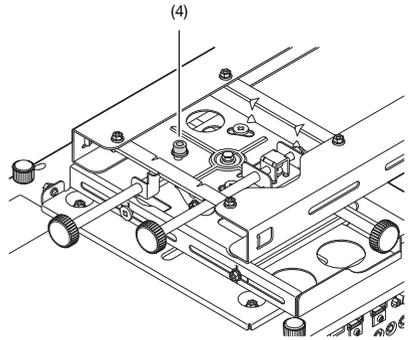
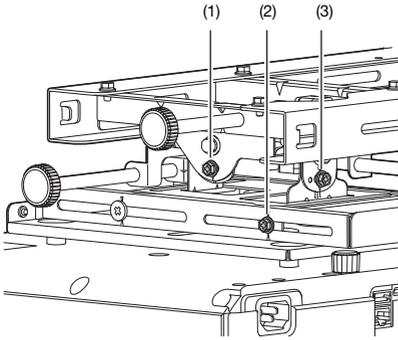


Adjusting the Position, Elevation, and Angle

3. Complete the adjustment procedure.

Securely tighten the five screws shown below.

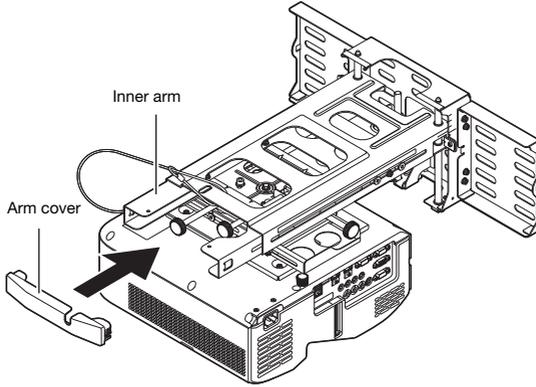
- Use the included hex wrench to tighten Screw (4).



Attaching the Covers

1. Attach the arm cover to the end of the arm unit.

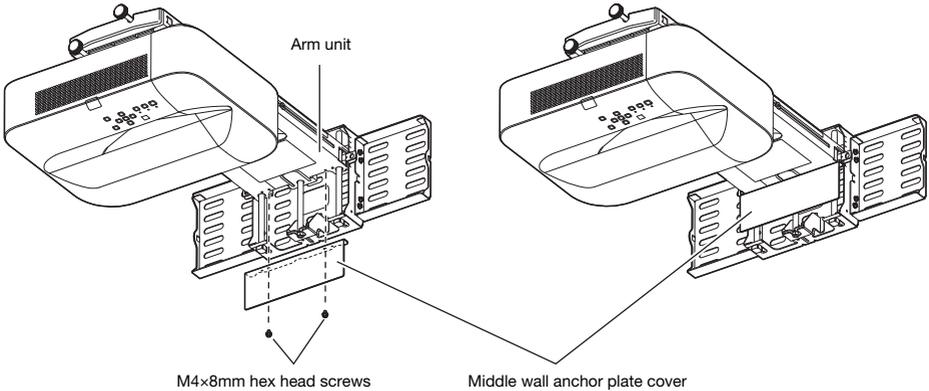
- Press the arm cover until the tabs on its left and right sides engage with the holes on either side of the inner arm.



2. Attach the cable cover to the projector.

- For information about attaching the cable cover to the projector, refer to the projector's User's Guide.

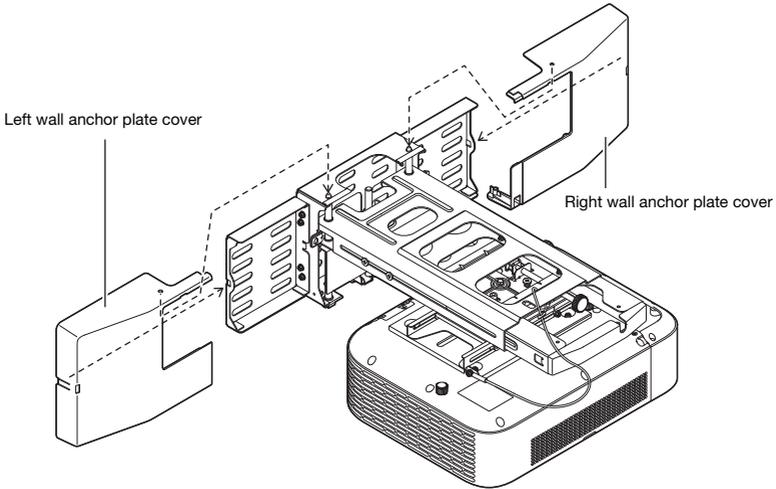
3. Secure the middle wall anchor plate cover to the bottom of the arm with two M4×8mm hex head screws.



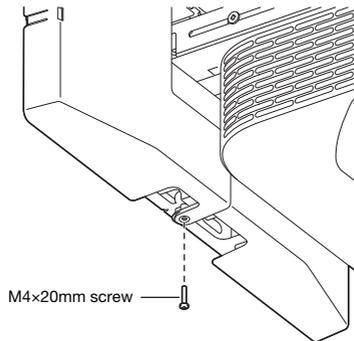
Attaching the Covers

4. Attach the left and right wall anchor plate covers.

- As shown in the illustration, attach the right cover first and then the left cover.



5. Install an M4×20mm screw into the screw holes in the bottom of the left and right wall anchor plate covers and tighten it to secure the covers.



Periodic Inspection

Perform the inspections described below once a year.

1. Check to make sure that none of the wall mount bracket screws are loose.
2. Check to make sure that the wall mount bracket, the covers, the projector, and other items are not scratched, damaged, etc.

Contact

Whenever you have any questions or concerns, contact your CASIO retailer.

Product Specifications

Approximate Dimensions: 500 (W) × 470 (D) × 190 (H) mm (19.7" x 18.5" x 7.5")
(minimum depth, excluding adjusting knob and covers)

Approximate Weight: 6.4 kg (14.1 lbs) (excluding projector)

CASIO®

カシオ計算機株式会社

〒151-8543 東京都渋谷区本町1-6-2

CASIO COMPUTER CO., LTD.

6-2, Hon-machi 1-chome
Shibuya-ku, Tokyo 151-8543, Japan

MA1710-B

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