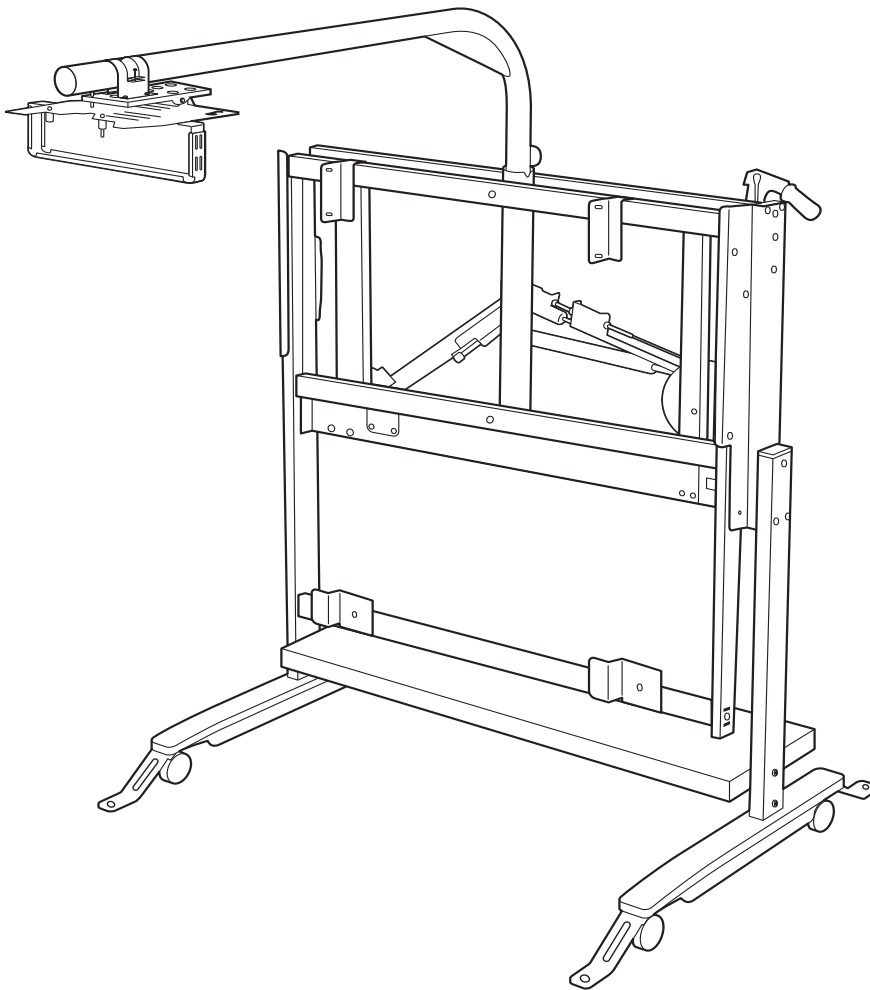# Panasonic®

Operating Instructions

Up/Down Wall Mount Kit
Up/Down Stand Kit
(For elite Panaboard)

Model No. UE-608030
UE-608031
UE-608032

Installation Manual Included (for qualified service personnel)
- To assemble this unit, please refer to the Installation Manual on pages 14 through 39.
- Before operating this unit, please read these instructions completely and keep them carefully for future reference.
- This unit is designed for installation by a qualified servicing dealer.
  Installation performed by non-authorized individuals could cause safety-related problems with the operation of this equipment.

For U.S.A. only:
- To locate the closest authorized dealer in your area, please call 1-800-449-8989.

Introduction

Thank you for purchasing the Panasonic up/down wall mount kit and up/down stand kit.
For optimum performance and safety, please read these instructions carefully.

Feature Highlights

The up/down wall mount kit and up/down stand kit are used solely with the Panasonic elite Panaboard.
These kits allow the elite Panaboard to be placed at the exact height desired.
They enable the elite Panaboard to be placed at a low height when it is going to be used for small children or at a higher height when it is going to be used for older children. In addition, the projector can be installed at the top of the stand for use so that the screen surface will be less likely to be in the shadows, making the elite Panaboard easy to use.
When using up/down stand kit, the large-sized casters provided enable the projector arm part to rotate so that even a large board and stand system can be easily moved from one place to another.

Things you should keep a record of

Attach your sales receipt here

For your future reference	
Date of purchase	
Serial number	
Dealer's name	
Dealer's address	
Dealer's tel no.	

Exemption of Liability

Panasonic System Networks Co., Ltd. is not responsible for accidents or injuries caused by, but not limited to, the following:
1. Altering the device or improper installation construction.
2. Using the device for purposes beyond its intended use.
3. Earthquake, fire, flood, tidal wave, hurricane, lightning or other natural phenomena.
4. Natural aging of the building or similar phenomena.

Table of Contents

For Your Safety

To prevent severe injury and loss of life, read this section carefully before using the unit to ensure proper and safe operation of your unit.

- This section explains the graphic symbols used in this manual.

⚠ **WARNING**	Denotes a potential hazard that could result in serious injury or death.
⚠ **CAUTION**	Denotes hazards that could result in minor injury or damage to the unit.

🚫 🚫	These symbols are used to alert operators to a specific operating procedure that must not be performed.
❗	This symbol is used to alert operators to a specific operating procedure that must be emphasized in order to operate the unit safely.
⚠ ⚠ ⚠	These symbols are used to alert operators to a specific operating procedure that must be performed carefully.

For Users

⚠ WARNING

Installation and Relocation

❗ Have the unit installed, removed and disposed of only by qualified service personnel.

🚫 Do not position the unit in a location where it is unstable.

❗ When the unit will no longer be used, in order to prevent it from falling, do not leave the unit installed, but remove it. If the unit falls, it can cause injury.

Operating Safeguards

🚫 Do not alter the unit or modify any parts. Alteration or modification can cause injury.

⚠ CAUTION

Installation and Relocation

When the stand is to be moved, get another person to help you and move it together.
Otherwise, it may cause injury.

Lock the casters (when using the stand) both after installation has been completed and after the stand has been moved.
If the stand is used with the casters unlocked, it may move or be overturned and/or cause injury.
After completing the installation or moving the stand to another location, be absolutely sure to attach the foot reinforcing assemblies to prevent the stand from toppling.

Locking the casters (Push to lock)
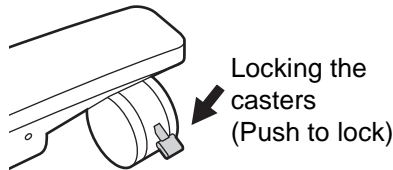
Operating Safeguards

Take care to prevent your fingers from being pinched while the elite Panaboard is moving up or down.
Otherwise, it may cause injury.
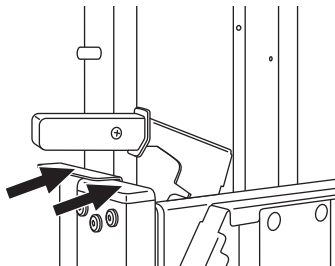
When items are to be placed on the table plate, put them toward the rear of the board.
Otherwise, they may be sandwiched between the table plate and elite Panaboard while the board is moving up or down, and this may damage the system.

Do not allow children to play near the elite Panaboard, stand on it or crawl under it.
Children may become sandwiched between the elite Panaboard and the table plate when the board is moving down or they may overturn the stand accidentally.

Do not allow children to hang or swing from the projector or arm.
The system may be overturned or damaged and/or the children may be injured.

Do not trip over the stand's feet.
Otherwise, it may cause injury.

Take care not to bang your head against the projector.
This is an overhead projector so you may bang your head against it depending on the height of the up/down part.

Be careful around the projector ventilation area, which becomes hot.
Working in this area or touching nearby objects may cause injury.

Warning Label

1	⚠️ **CAUTION** Be careful not to hit your head on the projector.	
2	⚠️ Hot Surface 高温注意	
3	⚠️ **CAUTION** Do not hang on to this arm.	
4	⚠️ **CAUTION** Be careful not to pinch your fingers when lowering the up/down part or applying the brake.	**5** ⚠️ CAUTION Be careful not to remove these screws until you finish installing the board and projector. Otherwise, the up/down part may spring up.
6	CAUTION : WATCH YOUR STEP	

Included Accessories

Check that the following item is included with your up/down wall kit or up/down stand kit.
• Operating Instructions - - -1

Names and Uses of the Parts

■ **When using with the stand**   ■ **When mounting onto a wall**

Rear View

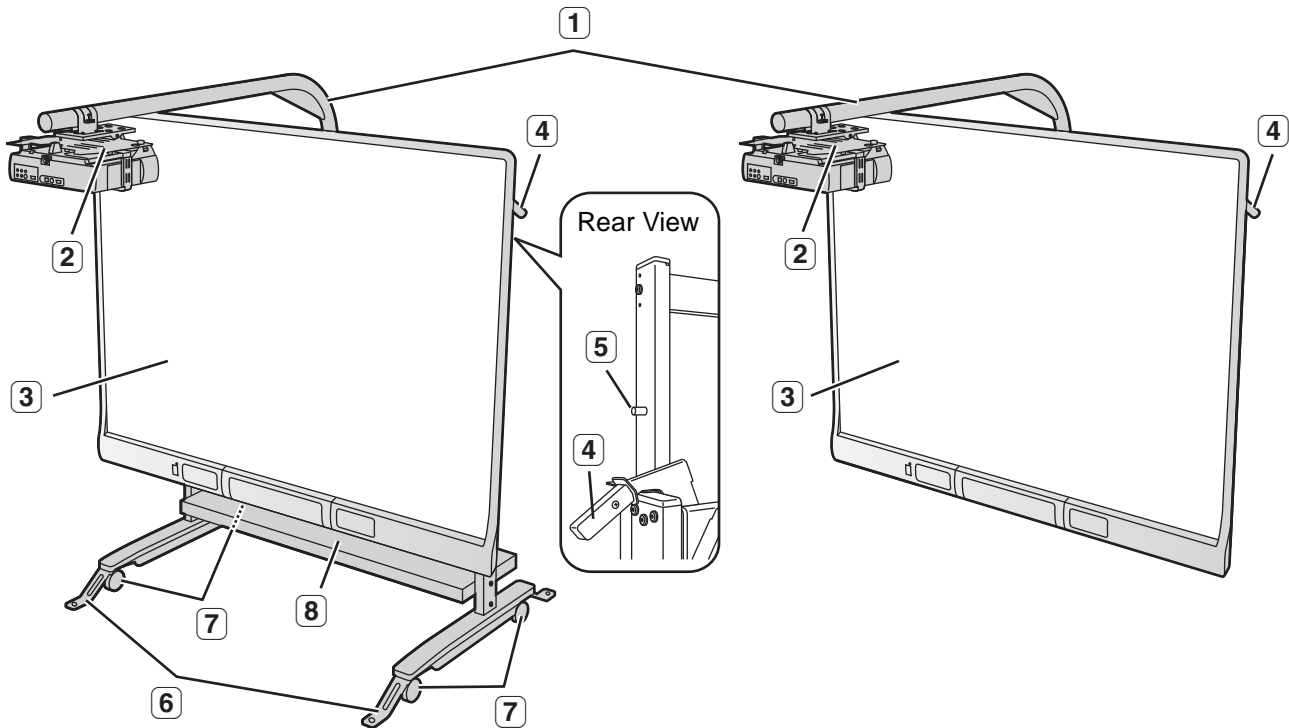|		
1	**Projector Arm**	The projector is mounted on this pipe which, when the elite Panaboard is moved using the stand, can be turned clockwise or counterclockwise until the arm is made parallel with the screen.
2	**Projector Bracket**	This is used to mount the projectors made by several companies. The actual projector mounting is carried out by the service engineer so consult the engineer concerning the mounting of the projector.
3	**elite Panaboard**	The elite Panaboard can be installed on the stand or on the wall. (model UB-T780, UB-T781, UB-T781W, UB-T880 or UB-T880W)
4	**Safety Brake**	This can be applied to ensure that the elite Panaboard will not move up or down.
5	**Pin End Stoppers**	These are put into place at some point along the up/down moving range to ensure that the projector will not suddenly drop down to a lower position. Before lowering the projector to its lowest position and, with the pin end stoppers pushed in, lower the up/down frame.
6	**Foot Reinforcing Assemblies (Only when the stand is used)**	When using the system with the stand, make sure that the foot reinforcing assemblies are installed to prevent the system from toppling over. Before moving the stand, be absolutely sure to remove the foot reinforcing assemblies from the stand base.
7	**Casters (Only when the stand is used)**	Further movement of the stand can be prevented by locking the rear casters.
8	**Table Plate (Only when the stand is used)**	The equipment (such as a notebook computer) to be used along with the elite Panaboard can be placed on the table plate.

Checkpoints When Installing the Equipment on the Table Plate

There are limits on the dimensions of the equipment which can be placed on the table plate so check them out.

Stand Part (Front)

1,150 mm (3 ft. 9 $^9/_{32}$ in.)

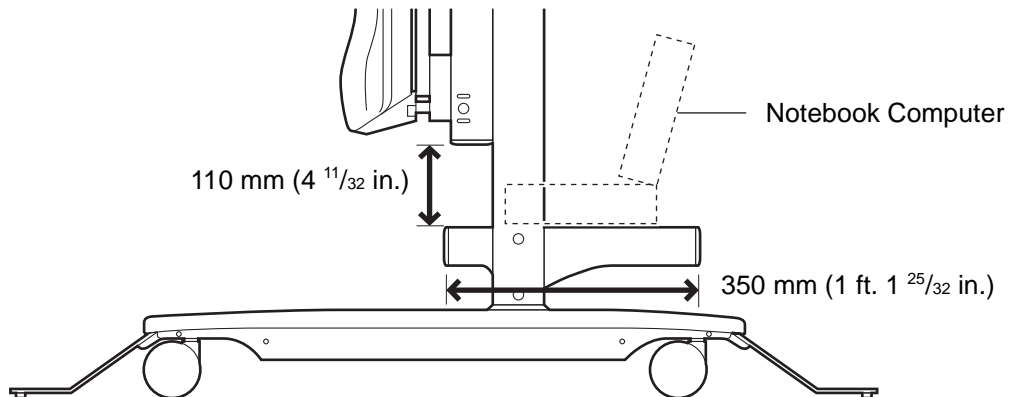## Stand Part (Side)

Notebook Computer

110 mm (4 $^{11}/_{32}$ in.)

350 mm (1 ft. 1 $^{25}/_{32}$ in.)
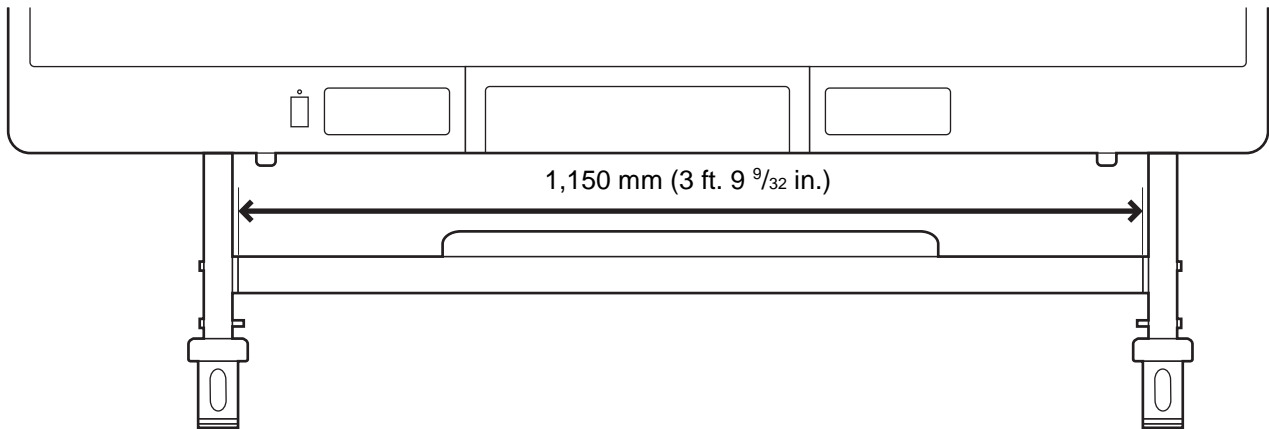
Securing the Stand

Once you are satisfied with where the stand has been installed, lock the casters and secure the stand prior to use.

Locking the casters
(Push to lock)
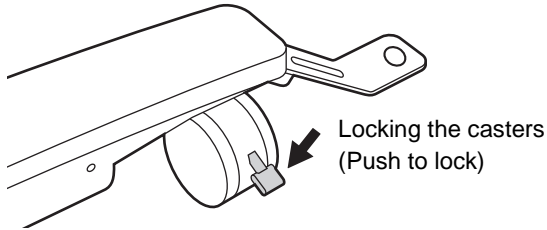
Moving the elite Panaboard Up or Down

Take hold of the board side frame or board bottom, and move the elite Panaboard or down. (The figure provided here shows the elite Panaboard and projector being used with the stand.)
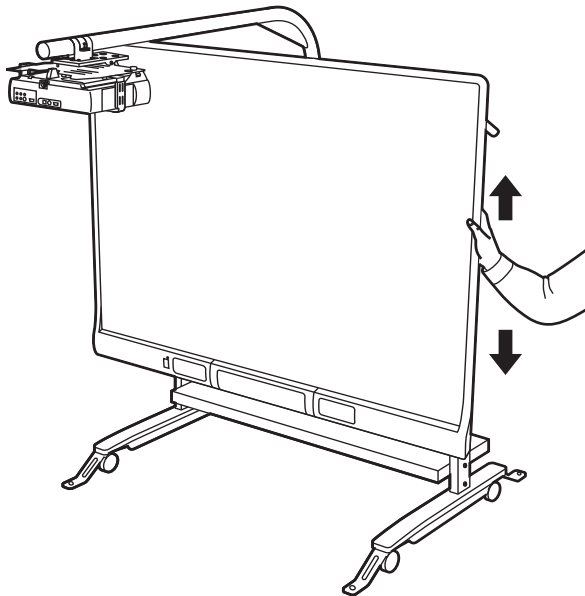
- Adjustable range of height
  Highest point: 2,120 mm (6 ft. 11 $^{15}/_{32}$ in.)
  Point at which the elite Panaboard is stopped by the first pin end stopper: 1,865 mm (6 ft. 1 $^{7}/_{16}$ in.)
  Lowest point: 1,670 mm (5 ft. 5 $^{3}/_{4}$ in.)
  (Usually, the elite Panaboard is used at a height between the highest point and the point at which it is stopped by the pin end stopper.)

Note
- The preceding height is the height of the elite Panaboard unit. (Not including the height of the projector arm.)
- The screen of models UB-T880 and UB-T880W serves as a touch sensor. Avoid touching the screen surface when raising or lowering the board, because your finger will be detected and the cursor or electronic pen position (where the screen was touched previously) will move to position you touch.

Once you have decided on the height at which the elite Panaboard is to be used, pull the safety brake lever down to secure the board in place.

Safety Brake
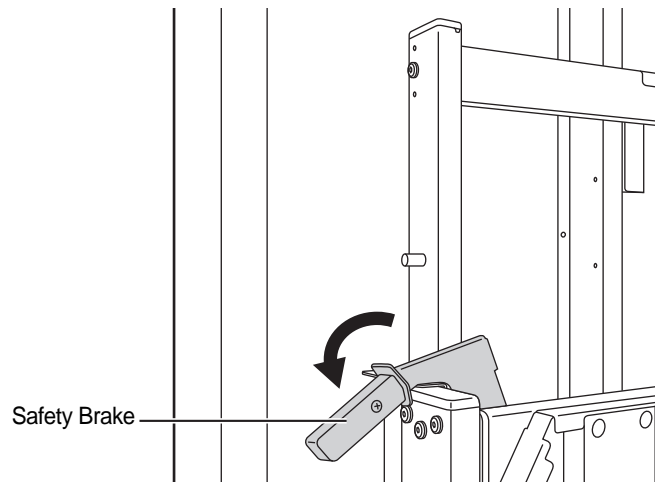
The pin end stoppers are provided at points along the 450 mm (1 ft. 5 $^{23}/_{32}$ in.) adjustment range. Use them at points in the range from the highest point and at the point where the elite Panaboard will be stopped by the stoppers. When the system is to be moved, release the safety brake (❶) and simultaneously push one pin end stopper (the one on the safety brake side) (❷) and lower the elite Panaboard slightly. Then simultaneously push the other pin end stopper and lower the elite Panaboard to the lowest point. After lowering the elite Panaboard to the lowest point, pull the safety brake lever to secure the board.

Pin End Stopper (Safety Brake Side)

Safety Brake
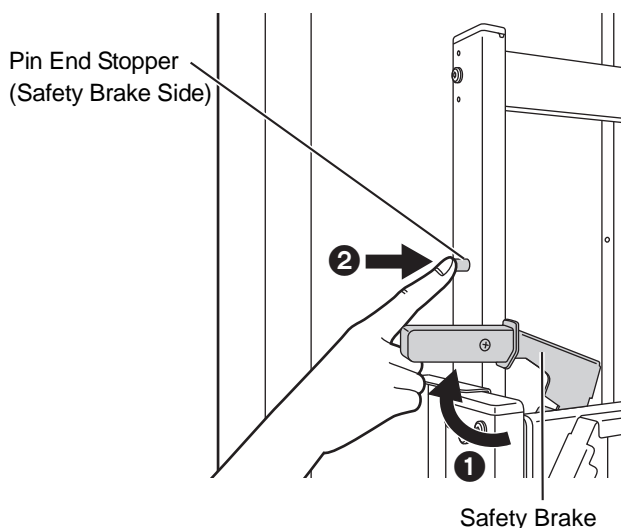
Notice
- When pushing the pin end stoppers and then moving the elite Panaboard down to an even lower position, remember that the projector will also be lowered at the same time. Take care to prevent the projector from hitting your head or other parts of your body.
- Similarly, the up/down part on which the elite Panaboard is installed will also move down to a low position so exercise care when tall equipment has been placed on the table plate.
- Be careful to avoid pinching your finger in the pin end stopper hole.

Using the elite Panaboard

1 **Turn on the power of the computer and projector.**

2 **When an image has appeared on the screen of the elite Panaboard, adjust the projector. (Refer to** "**Adjusting the Screen Image**" **(page 10).)**

3 **Turn on the power of the elite Panaboard.**

4 **Proceed with calibration.**
(Refer to the Operating Instructions of the elite Panaboard unit.)

Adjusting the Screen Image

If the desktop screen image displayed has trapezoidal distortion or if it is out of focus, adjust the projector, and optimize the image.
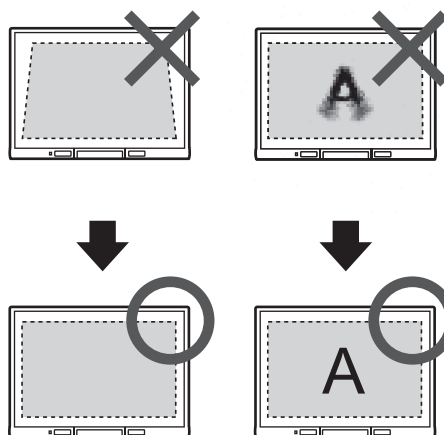
Note
- If projected images are distorted because the projector lens has become deformed, it may not be possible to align the position touched on the screen with the display position even by performing calibration.

Moving the Stand

Stowing the Projector Assembly

Prepare to move the stand by carrying out the steps below.

1 Disconnect the power cable from the power outlet.

2 Move the projector.

- While lifting the projector arm slightly, turn it clockwise or counterclockwise slowly, and move the arm so that it is made parallel with the elite Panaboard unit.

<u>**Note**</u>

- At the lowest point, the projector may come into contact with the unit. Rotate the arm away, so that the projector will not touch the unit.

3 Attach knob B (with the board bracket attached) at the position shown in the figure and secure the projector arm.
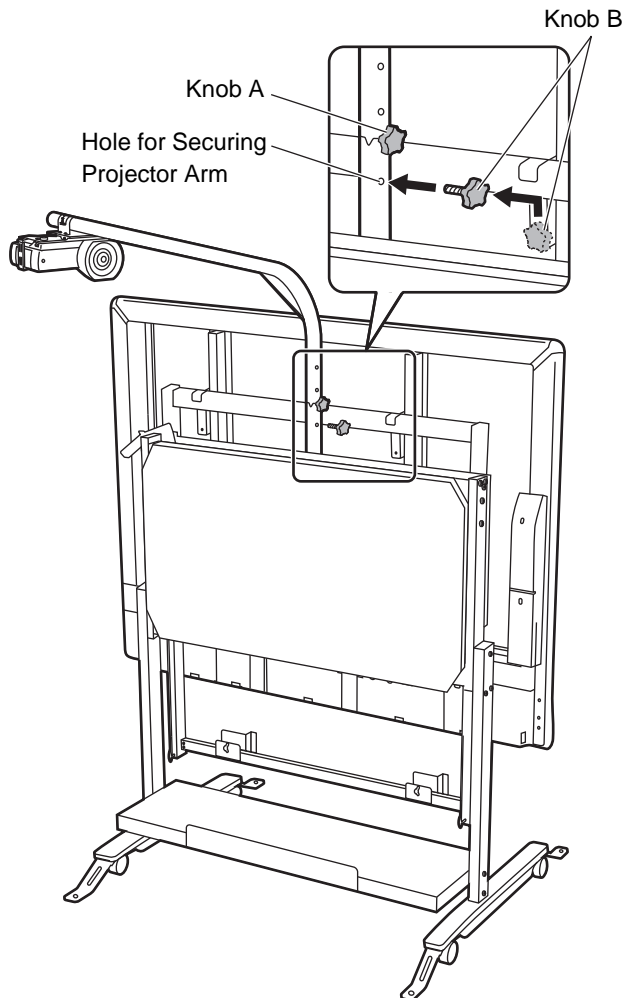
<u>**Note**</u>

- The position of knob A varies depending on the projector used.

4 Lower the elite Panaboard to the lowest point.

<u>**Note**</u>

- If the height of the entrance is less than 2 m (6 ft. 6 $^3/_4$ in.), proceed with steps 1 and 2, and after having moved the projector, lower the height of the projector arm by following the steps below.
  ❶ Attach knob B to the top hole.
  ❷ Lift the projector arm slightly and remove knob A from the projector arm.
  (The position of knob A varies depending on the projector used.)
  ❸ Lower the projector arm to the position where knob B stops it.
  ❹ Attach removed knob A to the securing position, and secure the projector arm.
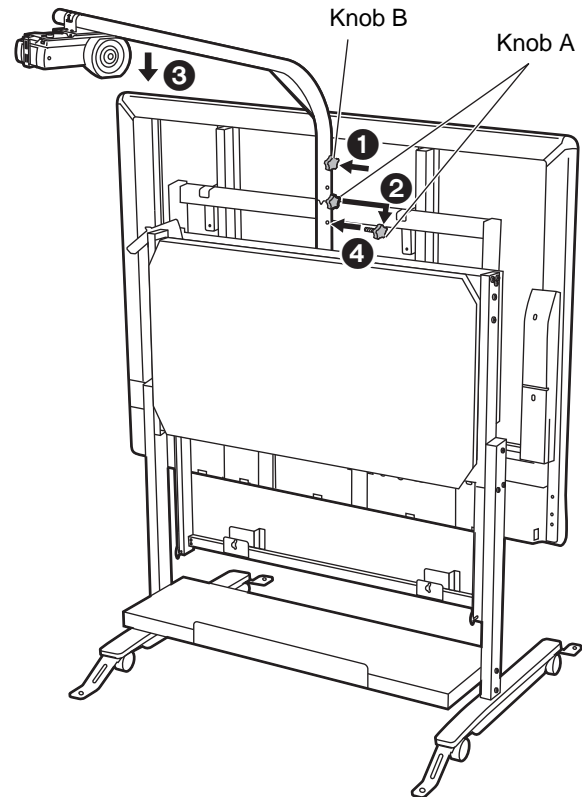
Removing the Foot Reinforcing Assemblies

While grasping the release lever on the back side of each foot reinforcing assembly, pull the assembly from the stand base.

Release Levers

Foot Reinforcing Assembly
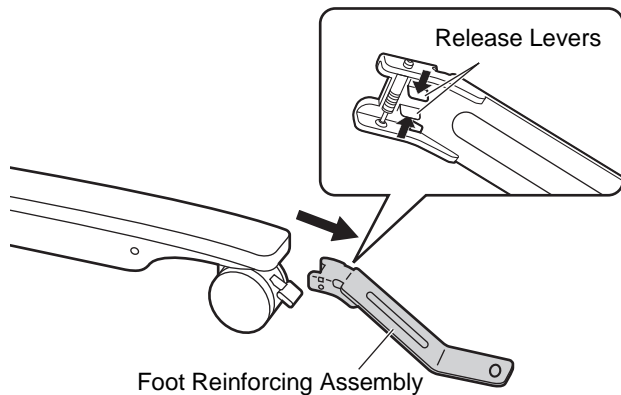
Notice

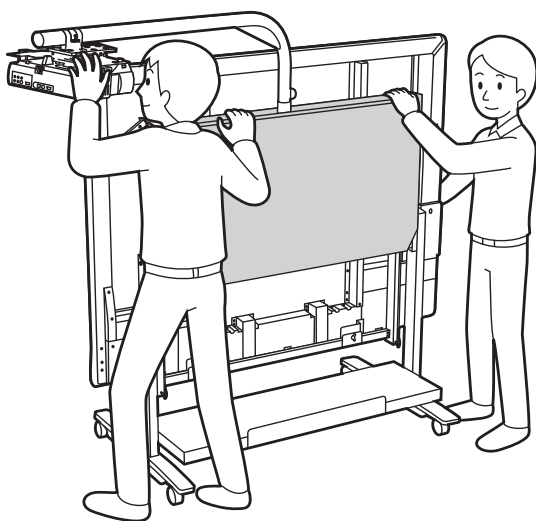- Before moving the stand, be absolutely sure to remove the foot reinforcing assemblies from the stand base. If the stand is moved with these assemblies still attached, it may catch on surrounding objects, cause somebody to trip over and/or cause injury.
- In case of securing the foot reinforcing assemblies using the bolts, please contact your dealer.

Moving the Stand

First get somebody to help you. Then take hold of the frame on the elite Panaboard sides and protective cover of the stand, and move the stand together.

Notice

When moving the stand
- Release the lock lever for each caster.
- Before moving the stand, disconnect the plug of the table tap from the wall outlet.
- Make sure that none of the cables are dragged along with the stand.
- Be absolutely sure to have another person ready to help you move the stand.
- Take care that none of the equipment placed on the table plate will fall off.

- While moving the stand, the stowed projector will move out of your field of view so while moving the stand, take care not to allow the projector to bump into a wall, door or other individuals around you.
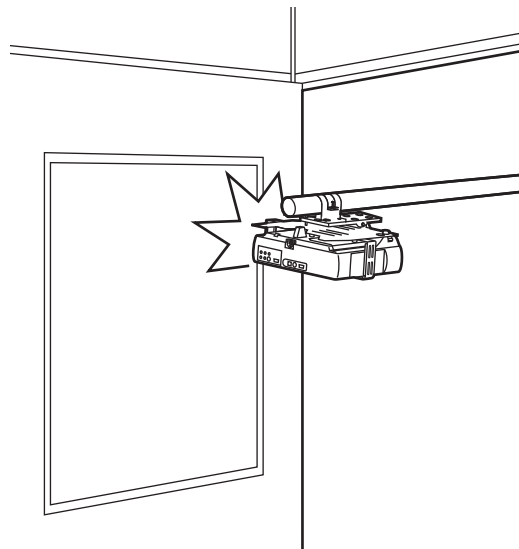
After the stand has been moved, follow the steps below to return it to the condition in which it was before it was moved.

1 **Lock the stand's casters.**

2 **Turn the casters so that they point inwards.**

3 **Re-attach the foot reinforcing assemblies.**

4 **Return the knob currently in the hole for securing the projector arm to the hole on the board bracket.**

- If the height of the entrance is less than 2 m (6 ft. 6 ³/₄ in.), perform step ❶ to ❹ in the note (page 11) in reverse.

5 **Move the projector in front of the elite Panaboard.**

6 **Connect the power cord.**

- Readjust the projector as needed and align it with the screen.

Troubleshooting

Symptom	Possible cause and solution
Unusual sounds are heard while the elite Panaboard is moving up or down or the elite Panaboard feels extremely heavy when it is raised.	Something may be wrong with the up/down unit. Stop using the elite Panaboard immediately, and contact your dealer.
Even when the elite Panaboard is raised, it drops down under its own weight.	The adjustment part for raising and lowering the elite Panaboard may be out of position. Contact your dealer and ask for a service engineer to conduct the adjustments again.

Installation Manual (for qualified service personnel)

- Request assembly of the units and wall mounting from your dealer.
- Before constructing or installing the units, please read "Installation Manual (for qualified service personnel)" carefully. Panasonic System Networks Co., Ltd. cannot be held responsible for accidents or damage to property resulting from incorrect installation.
- **Please read "For Your Safety" (pages 4–6 and pages 14–15) carefully and install the units safely.**
- When installing the elite Panaboard on a wall or on the up/down unit, perform installation with 2 people.

For Your Safety

To prevent severe injury and loss of life, read this section carefully before using the unit to ensure proper and safe operation of your unit.

The following graphic symbols are used in this Installation Manual.

⚠ WARNING	Denotes a potential hazard that could result in serious injury or death.
⚠ CAUTION	Denotes hazards that could result in minor injury or damage to the unit.

🚫 🚫	These symbols are used to alert operators to a specific operating procedure that must not be performed.
❗	This symbol is used to alert operators to a specific operating procedure that must be emphasized in order to operate the unit safely.
⚠	This symbol is used to alert operators to a specific operating procedure that must be performed carefully.

Notice

⚠ **WARNING**

❗ If the unit is hung on a wall, confirm the wall must be capable of supporting at least the following weight.

4,100 N (418 kgf)

🚫 Do not alter the unit and install. Installing an altered unit can cause injury.

❗ Have the unit installed, removed and disposed of only by qualified service personnel.

❗ Be sure to use the specified parts for the installation. Otherwise, it may cause injury.

❗ Notes in the operating instructions or notes of labels on the unit should be observed.

❗ Safety check must be done by qualified service personnel after installing this option.

⚠ CAUTION

🚫 Do not attach the electronic board to mortared walls. Accidental electric leakage from the mounting bolts securing the up/down unit to metal laths or wire laths can cause heat, smoke or fire.

❗ Confirm the bolts of the unit are certainly caught by the up/down unit by pulling the elite Panaboard after hanging the elite Panaboard on the up/down unit if the unit is mounted on a wall.

❗ Be sure to put on a glove to avoid injury.

❗ Do not remove the up/down locking plates until you are ready to attach the board and projector.
If these plates are removed by mistake, the up/down part may spring up and cause injury.

❗ Lock the casters (when using the stand) both after installation has been completed and after the stand has been moved.
If the stand is used with the casters unlocked, it may move or be overturned and/or cause injury.
After completing the installation or moving the stand to another location, be absolutely sure to attach the foot reinforcing assemblies to prevent the stand from toppling.

Locking the casters
(Push to lock)

⚠ Be careful around the projector ventilation area, which becomes hot.
Working in this area or touching nearby objects may cause injury.

Packing Configuration

The following units are required when using the up/down stand kit or up/down wall mount kit.

Up/Down Stand Kit	Up/Down Unit	UE-608030
	Stand Table Unit	UE-608031
	Short-Throw Arm Unit	UE-608032
Up/Down Wall Mount Kit	Up/Down Unit	UE-608030
	Short-Throw Arm Unit	UE-608032

Included Accessories

The following items are provided in the packing boxes. Check that they are present and accounted for.

■ **Up/Down Unit (UE-608030)**

Unit × 1
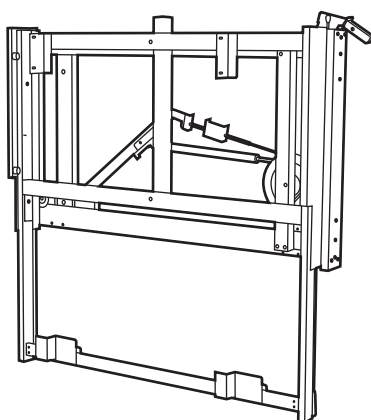
No.	Part Name	Illustration	Q'ty	No.	Part Name	Illustration	Q'ty
①	Cable Holder A		1	⑤	Board Mounting Screw (M6)		4
②	Cable Holder B		2	⑥	Board Bracket Fastening Screw (M5)		6
③	Hook and Loop Fastener		1	⑦	Board Bracket		4
④	Operating Instructions		1				

■ Stand Table Unit (UE-608031)
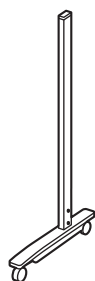
Stand × 2　　　Foot Reinforcing　　　Table Plate × 1　　　Protective Cover × 1
　　　　　　　　Assembly × 4
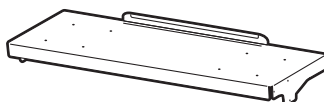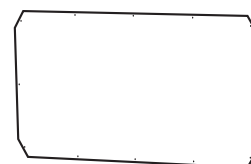
No.	Part Name	Illustration	Q'ty	No.	Part Name	Illustration	Q'ty
⑧	Bolt (M6 x 75 mm [2 $^{15}/_{16}$ in.]) for Securing Left and Right Stands		6	⑬	Collar for Securing Table Plate		4
⑨	Collar for Securing Left and Right Stands		6	⑭	Spring Washer for Securing Table Plate		4
⑩	Screw (M3 x 10 mm [$^{13}/_{32}$ in.]) for Securing Protective Cover		12	⑮	Flat Washer for Securing Table Plate		4
⑪	Flat Washer for Securing Protective Cover		12	⑯	Nut for Securing Table Plate		4
⑫	Bolt (M6 x 50 mm [1 $^{31}/_{32}$ in.]) for Securing Table Plate		4				

■ Short-Throw Arm Unit (UE-608032)

Projector Bracket × 1　　　　　Projector Sub-Bracket × 1　　　　　Projector Arm × 1

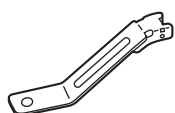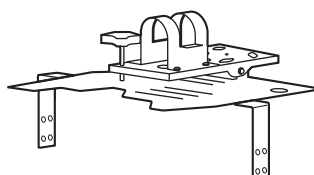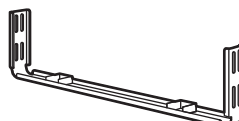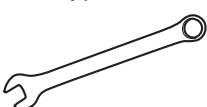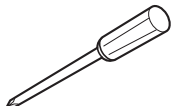| No.	Part Name	Illustration	Q'ty	No.	Part Name	Illustration	Q'ty
⑰	Spacer for Securing Projector		5	㉓	Pipe Cap		1
⑱	Bushing for Securing Projector		5	㉔	Screw (M4 x 8 mm [$^{5}/_{16}$ in.]) for Securing Pipe Cap		1
⑲	Screw (M4 x 30 mm [1 $^{3}/_{16}$ in.]) for Securing Projector		5	㉕	Screw (M3 x 25 mm [$^{31}/_{32}$ in.]) for Securing Projector (for Acer)		3
⑳	Screw (M4 x 10 mm [$^{13}/_{32}$ in.]) for Securing Projector Sub-Bracket		4	㉖	Toothed Washer for Securing Projector Sub-Bracket		4
㉑	Pipe Bracket		1	㉗	High-Temperature Warning Label		1
㉒	Screw (M4 x 25 mm [$^{31}/_{32}$ in.]) for Securing Pipe Bracket		1	㉘	Securing Knob (Attached to the Projector Arm)		2

Checking the Wall

Which method should be used to mount the up/down wall mount kit depends greatly on the structure of the wall. The system to be mounted on the wall is heavy (up to 84 kg [185.19 lbs] including the elite Panaboard and projector). Before proceeding with installation, therefore, consult with the building manager, maintenance engineer or designer to verify that the wall has a structure strong enough to support the weight of the system. For safety, install the elite Panaboard only after thoroughly understanding the type of walls, the appropriate types of screws and the construction method.

I. Necessary Tools and Parts (not included with the up/down wall mount kit)

Tools Required for Assembly

10 mm ($^{13}/_{32}$ in.) Wrench - - -3 (Ideally, one of these should be a ratchet type of wrench.)	13 mm ($^1/_2$ in.) Wrench - - - - - - - - -1	4 mm ($^5/_{32}$ in.) Allen Key - - - - - - - 1	Phillips Head Screwdriver - - - - - 1

Tools and Parts Required for Wall-Mounting Work

Anchor - - - - - - - - - - - - - - - -4 M8 Bolt - - - - - - - - - - - - - - -4 Flat Washer - - - - - - - - - - -4 Spring Washer - - - - - - - - - -4	**The specified pull-out strength is required per anchor.** M8 anchor bolts are used when installing the up/down unit on the wall. (Specified pull-out strength: 5,197.5 N [530 kgf])
Drill	Select the drill diameter specified for the anchors used.
Measuring Tape / Level	These are used to ensure that the holes drilled in the wall will be positioned precisely.
Dust Pump	This is used for cleaning purposes to ensure that no scraps or chips are left inside the holes. Note that the cleaning of the insides of the holes must be thorough because the drive bolts will be subject to a reactive force at the bottom of the holes.
Torque Driver	Use a torque driver whose torque can be specified. (Recommended tightening torque: 12.5 N•m [127 kgf•cm])

Other Parts

5 m (16 ft. 4 $^{27}/_{32}$ in.) Video Cable (D-sub Cable)	5 m (16 ft. 4 $^{27}/_{32}$ in.) Power Cable	3 m (9 ft. 10 $^1/_8$ in.) 4-Way Plug Adaptor * (with 3-Conductor Ground, Magnet)

*Please choose local certified 4-Way Plug Adaptor.

Notice

• If necessary, have an extension cord ready. A total cable length (including extension cord) of approximately 5 m (16 ft. 4 $^{27}/_{32}$ in.) is required.

II. Checkpoints to be Observed While Working

1 Work-Related Safety Precautions

• Before mounting the up/down unit, read through the following points, and take care to avoid accidents.
  — Be absolutely sure to wear a hardhat, protective shoes, safety belt and other safety gear.
  — To ensure safety, be absolutely sure to do the work with another individual (= 2-person crew).
  — Before proceeding with the work, check that there are no other individuals around you.
  — To ensure that the work is accomplished safely and properly, make it a basic rule to strictly observe all other applicable aspects of safety control.
  — If there is a chance that the unit has ended up being deformed or damaged by unexpected impact while it was being transported and installed, do not install it without taking appropriate measures. Otherwise, it may fall off the wall.

2 **Concerning Installation**
- The up/down stand kit and up/down wall mount kit are for indoor use. They cannot be used outdoors. Neither can they be installed or used in the following kinds of places.
  — Places where they will be directly exposed to rain or water (including under the eaves of a house)
  — Places where chemicals are used such as swimming pools
  — Places with a lot of steam or grease such as manufacturing plants or kitchens, places with special environments such as those with combustible atmospheres
  — Seaborne or coastal places and places where corrosive gases are given off
  — Places subject to frequent vibrations such as in vehicles or ships (the up/down wall mount kit is not designed to be used in or on vehicles)
  — Places other than walls (this is applicable to the up/down wall mount kit)
  — Places where the operating temperature range of the elite Panaboard will be exceeded
- To prevent deformation and discoloring, avoid installing the kits in places exposed to direct sunlight or near heating or cooling appliances, etc.
- When carrying out the work, be absolutely sure to abide by the construction-related laws and other related ordinances of the country concerned.

3 **Concerning the Installation Surface**
- Mount the up/down unit in a stable location. **The specified pull-out strength is required per anchor.** M8 anchor bolts are used when installing the up/down unit on the wall.
  (Specified pull-out strength: 5,197.5 N [530 kgf])
- Avoid mounting the unit on a wall, which is not a principal structure component*, with a plasterboard, plywood or other such construction since these walls are weak. If mounting on such a wall is unavoidable, reinforce the wall adequately (by ensuring that its ultimate strength will be at least as great as the specified pull-out strength of the anchors).
  *Principal Structural Component
  This term refers to walls, pillars, floors, beams, roofs and staircases, and it excludes partition walls, stud walls, attached columns, raised floors, floors on the bottom-most levels of buildings, floors of revolving stages, secondary beams, pent-roofs, partial sub-staircases, outdoor staircases and other structural parts of a similar nature which are not crucial to the building from a structural point of view.

4 **Concerning the Screws and Bolts Used**
- When obtaining anchors and bolts locally, be absolutely sure that they satisfy the required specifications.
- Do not use wood screws.

5 **Concerning the Tightening of the Screws and Bolts**
- Tighten the screws and bolts using the specified torque. Tightening them up using excessive torque will damage the screw threads, causing the unit to fall off the wall. Conversely, the screws will be loose if they are tightened up with insufficient torque.
- The torque levels are specified, so use a torque driver to tighten up the screws and bolts.
- The range in which the torque can be specified is limited for each torque driver. Refer to the recommended torque levels which are specified, and use the appropriate torque driver.
- Do not use an impact driver or power driver whose torque is difficult to control since using such a driver may damage the screws and bolts.
- Tighten the screws and bolts so they go straight in.

6 **Other Checkpoints**
- Make sure that the location is large enough to accommodate the elite Panaboard.
  Height: greater than 2,500 mm (8 ft. 2 $^7/_{16}$ in.)
  Width: greater than 2,100 mm (6 ft. 10 $^5/_8$ in.)
- Make sure that the AC outlet is within 3 m (9 ft. 10 $^1/_8$ in.) of where the system will be mounted and that it will not be behind the up/down unit and the elite Panaboard.
- Make sure that the Operating Instructions of the elite Panaboard to be mounted on the wall are at hand. The Operating Instructions that are supplied with each elite Panaboard model describe how to install each elite Panaboard directly onto the wall and how to conduct the operation checks.

Wall Types and Installation Procedures

I. When the Wall is a Principal Structural Component (a concrete wall which is at least 120 mm [4 $^3/_4$ in.] thick)

Use the M8 bolts to mount the system on the wall. It is also necessary to provide anchors separately. The figure below shows the end mounting position of the up/down unit and the elite Panaboard vis-à-vis the hole positions. Check that there is enough space around the mounting position. Carefully read the instructions for the anchors which will be used, and check the correct hole diameters.

530 to 785 mm (1 ft. 8 $^7/_8$ in. to 2 ft. 6 $^{29}/_{32}$ in.)
335 to 785 mm (1 ft. 1 $^3/_{16}$ in. to 2 ft. 6 $^{29}/_{32}$ in.)
 (when the pin end stoppers are released)

2,500 mm (8 ft. 2 $^3/_8$ in.)

438 mm (1 ft. 5 $^1/_4$ in.)

100 mm (3 $^{15}/_{16}$ in.)

900 mm (2 ft. 11 $^7/_{16}$ in.)

A   951 mm (3 ft. 1 $^7/_{16}$ in.)

2,100 mm (6 ft. 10 $^{11}/_{16}$ in.)
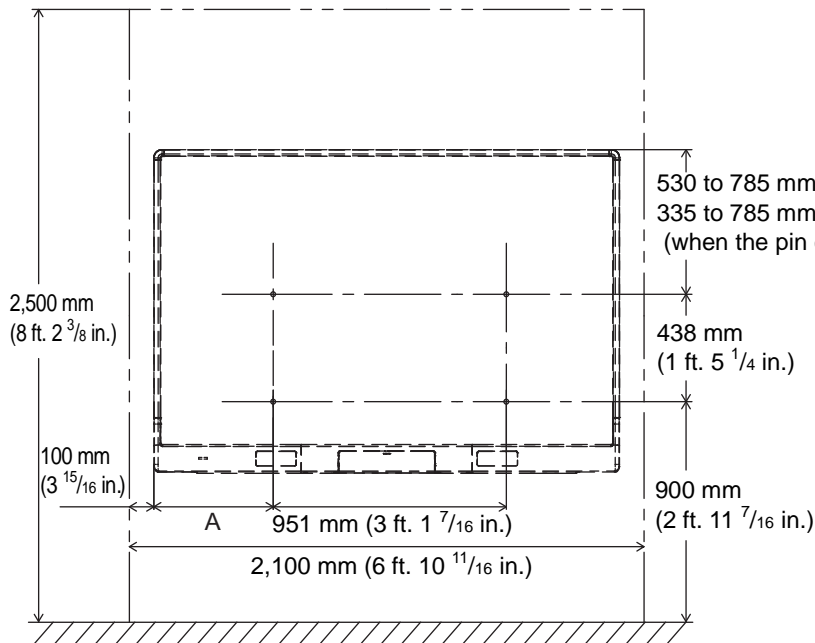
UB-T880W / UB-T781W

Projector	A
Panasonic	420 mm (1 ft. 4 $^{17}/_{32}$ in.)
SANYO	567 mm (1 ft. 10 $^5/_{16}$ in.)
EPSON	410 mm (1 ft. 4 $^5/_{32}$ in.)
Optoma	389 mm (1 ft. 3 $^5/_{16}$ in.)
Acer	385 mm (1 ft. 3 $^5/_{32}$ in.)
BenQ	425 mm (1 ft. 4 $^{23}/_{32}$ in.)

• UB-T880: Above dimensions less 122 mm (4 $^{13}/_{16}$ in.)
• UB-T780 / UB-T781 / UB-T780BP: Above dimensions less 25 mm ($^{31}/_{32}$ in.)

Note

• The above outline drawing for wall-mounting uses the UB-T880W as an example. The UB-T781 and other models have a smaller installation surface area than the UB-T880W so they can definitely be mounted if the space shown in the drawing is available.

Wall-Mounting Construction Procedure

1 Drill the two top holes in the wall.

2 Fasten the anchors to the holes.

3 Insert the M8 bolts into the top left and right anchors and tighten them up until they only protrude approximately 4 mm ($^5/_{32}$ in.) from the surface of the wall.

4 With the help of another individual, take the up/down unit out of its packing box, and hang it on the wall by engaging the elongated holes at the top of the pipe on the rear surface of the unit with the two bolts.

5 With the up/down unit hanging on the wall, mark off the positions of the holes used to secure the bottom part of the unit, put the up/down unit down, and drill the two bottom holes in the wall.

6 Fasten the anchors to the bottom holes.

Flat Washer (max. diameter of 16 mm [$^5/_8$ in.])

Spring Washer

Bolt

Approx. 4 mm ($^5/_{32}$ in.)
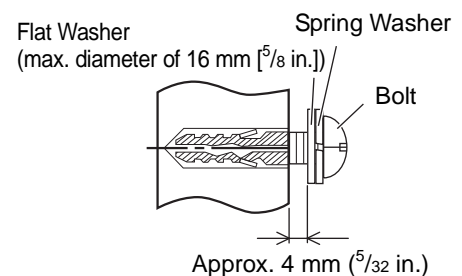
Notice
- Ensure that the installation strength is at least as great as the specified pull-out strength of the anchors which is 5,197.5 N [530 kgf].
- Use the values recommended by the manufacturer of the anchors used for the depth to which the anchors are to be embedded in the wall.
- Use M8 bolts when the anchors have internal screw threads.
- Ensure that the length of the M8 bolts provides an interfitting length of at least 1.5 times the bolt diameter. (diagram at right)
- Ensure that the M8 bolts do not strike the bottoms of the anchors, and check that they have been tightened up securely.
- Recommended tightening torque: 12.5 N•m (127 kgf•cm)
  For tightening purposes, use a torque driver whose torque can be specified.

Installation Surface — Anchor (internal thread)
At least 1.5 times the bolt diameter
Flat Washer (max. diameter of 16 mm [⁵/₈ in.])
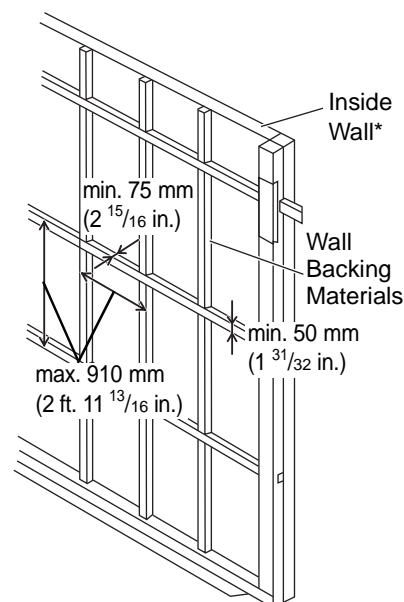Spring Washer
M8 Bolt
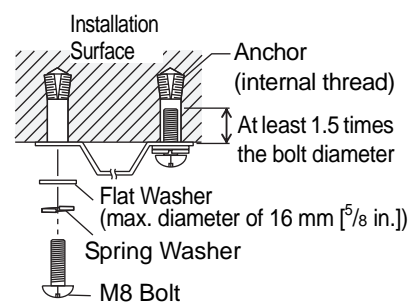
II. When the Wall is not a Principal Structural Component

Check the structure of the wall backing materials. If the following conditions are not satisfied, consult with a building contractor, and proceed with installation after having reinforced the wall so that it does meet the conditions.
- For the wall backing materials, use wood materials measuring at least 50 mm × 75 mm (1 $\frac{31}{32}$ in. × 2 $\frac{15}{16}$ in.) equivalent to the ones given in the table below or metal stands or other such parts with at least the equivalent strength.
- The maximum distance between the wall backing materials must be 910 mm (2 ft. 11 $\frac{13}{16}$ in.).

min. 75 mm (2 $\frac{15}{16}$ in.)
Inside Wall*
Wall Backing Materials
min. 50 mm (1 $\frac{31}{32}$ in.)
max. 910 mm (2 ft. 11 $\frac{13}{16}$ in.)

*The term "Inside Wall" refers to the wall surface inside a room.

Long-Term Allowable Unit Stress of Wood Materials (kg/cm²)

		Compressive strength	Tensile strength	Flexural strength	Shearing strength
Coniferous trees	Japanese red pine, Douglas fir	75	60	95	8
	Japanese larch, Japanese cypress, "Hinoki" cypress	75	60	95	8
	Hemlock, Western hemlock	65	50	85	7
	Japanese fir, Sakhalin fir, Japanese cedar	60	45	75	6
Broad-leaved trees	Evergreen oak	90	80	130	14
	Japanese chestnut, Oak, Japanese beech	70	60	100	10

\<Concerning the Reinforcing Material Work\>

If the wall backing materials are not principal structural components, they must be reinforced as below. Install the reinforcing material onto the wall backing materials. If the distance between the wall backing material is not less than 910 mm (2 ft. 11 $^{13}/_{16}$ in.), use a material whose strength is equivalent to the backing materials and add extra backing materials so that the distance is made less than 910 mm (2 ft. 11 $^{13}/_{16}$ in.).


Reinforcing Material (Board) - - - 1	Square Timber- - - - 2	Metal Plate* - - - - - -2	Wall Backing Material

*Use a material whose strength is equivalent to steel (SPCC t=3) for the metal plate and provide it with a rust-preventive coating.

Other Parts Required

M8 Bolt × 4 (Select the bolts with the length appropriate for the wall structure.), Spring Washer × 8
Flat Washer (max. diameter of 16 mm [$^{5}/_{8}$ in.]) × 8, Lock Nut × 8

\<Outline Drawing of Reinforcing Material Installation\>
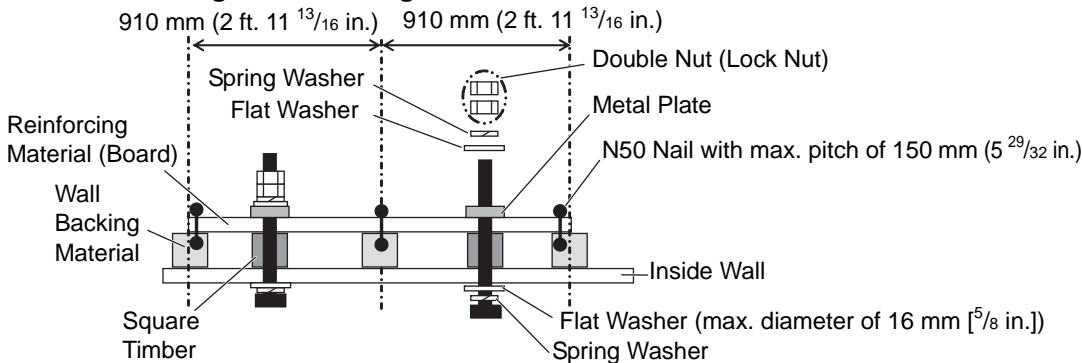
- Use N50 nails with a maximum pitch of 150 mm (5 $^{29}/_{32}$ in.) to connect the reinforcing material with the backing materials.
- When doing this work, station at least one individual on the room interior side and another individual on the wall backing material side, and tighten the bolts securely.

#### Prohibited Action: Do NOT do the following work.
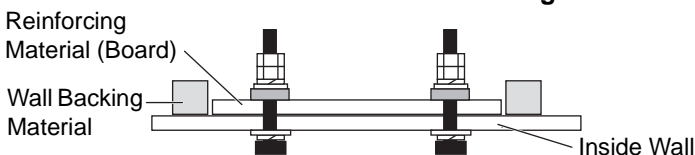
- Do not provide reinforcement where the wall backing materials and reinforcing material are not interconnected. Otherwise, there is a danger that the unit will fall off the wall.

\<Precautions for Tightening Nuts\>

- Recommended tightening torque of M8 nuts: 12.5 N•m (127 kgf•cm)
  For tightening purposes, use a torque wrench which can specify the torque.
- To prevent the nuts from becoming loose, use double nuts or similar nuts for the reinforcing material.

III. When the Principal Structural Components are in Close Proximity to the Wall Backing Materials (when there is no distance between the backing materials and principal structural components)
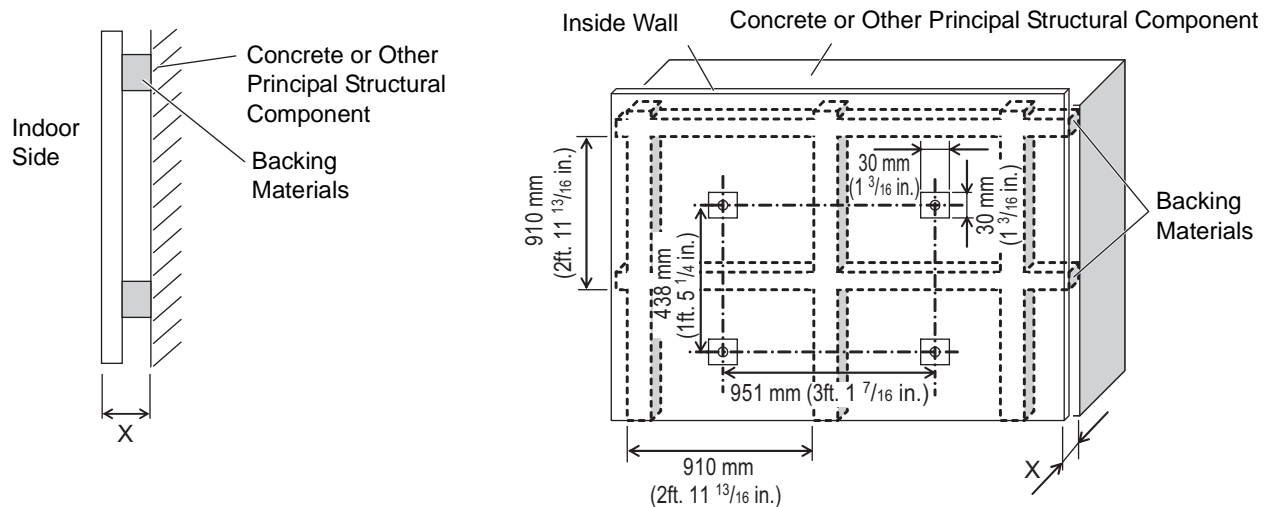
- Dimension "X" must not be more than 170 mm (6 $^{11}/_{16}$ in.). If this maximum is exceeded, consult with a building contractor and take the steps to ensure that the reinforcing work at least equivalent to what was described in sections I and II above is carried out.

- Locate a place where there are no backing materials, and make cutouts in the inside wall to accommodate the mounting of the M8 anchors. Refer to the figure at the top right for the specific dimensions of the cutouts. (W: 30 mm × H: 30 mm [W: 1 $^{3}/_{16}$ in. × H: 1 $^{3}/_{16}$ in.])
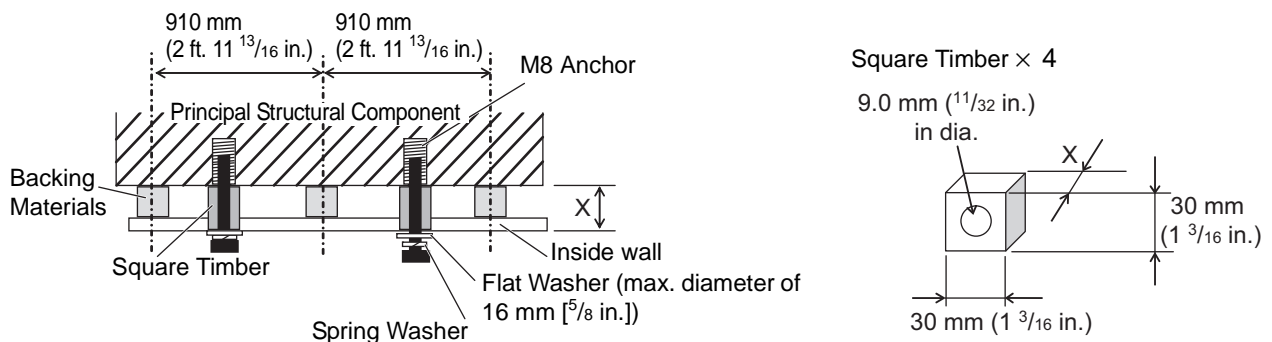
Other Parts Required

Anchor × 4, M8 Bolt × 4, Spring Washer × 4, Flat Washer (max. diameter of 16 mm [$^{5}/_{8}$ in.]) × 4

- Dimension "X" is the distance from the principal structural component to the inside wall. Install the anchors all the way through to the principal structural component as above. For details on installing the anchors, refer to "I. When the Wall is a Principal Structural Component (a concrete wall which is at least 120 mm [4 $^{3}/_{4}$ in.] thick)"(page 20). Ensure that the installation strength is at least as great as the specified pull-out strength of the anchors which is 5,197.5 N [530 kgf].

IV. When the Wall Structure is Other than the Ones Covered in Sections I to III

Provide reinforcement at least equivalent to that in section II, and install the up/down unit.

Mounting and Securing the Up/Down Unit

1 **Hang the up/down unit on the wall again.**

2 **Take the steps below to secure the up/down unit.**

❶ **Pass one M8 bolt through the bottom hole in the stay L75 pipe on the left, and use it to secure the up/down unit.**

❷ **Pass another M8 bolt through the bottom hole in the stay drum 75 pipe on the right, and use it to secure the up/down unit.**

❸ **Tighten the M8 bolts in the top holes of the left and right pipes, and fasten the up/down unit securely to the wall.**

Stay L75 Pipe

Stay Drum 75 Pipe
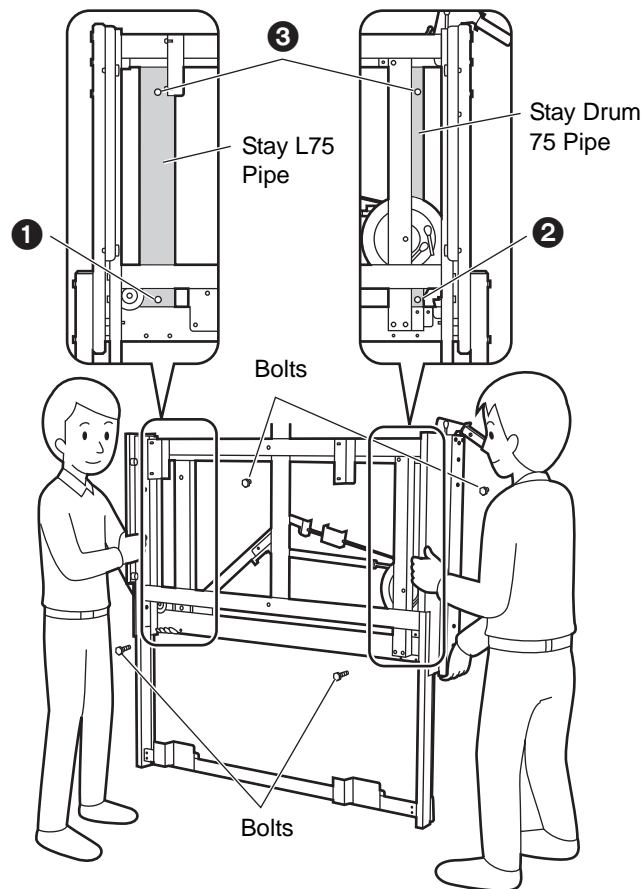
Bolts

Bolts

After mounting the up/down unit on the wall, pull the unit toward you, and check that the wall-mounting bolts are fastened completely.
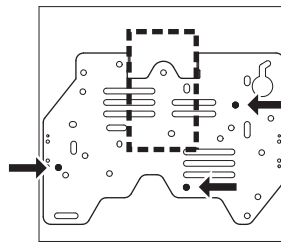
Notice

• To ensure safety, do this work with another individual without fail.
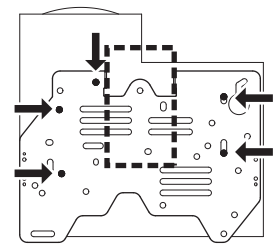
Preparing to Mount the Projector

Shown below are the projector models which can be secured to the projector bracket.
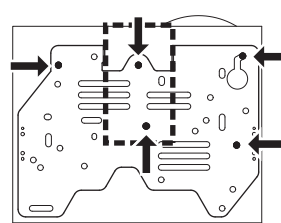Use the spacers, bushings and screws at the positions shown for each model, and fasten the projector securely.
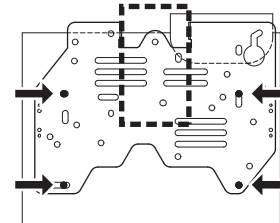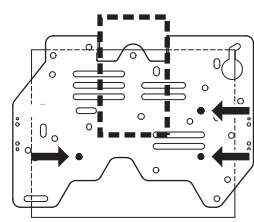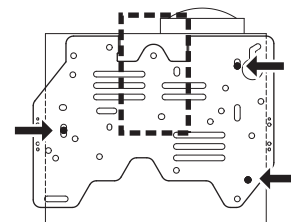

Panasonic PT-ST10

SANYO LP-WXL46(S)

EPSON EB-410W

Optoma EX525ST

Acer S1200

BenQ
MP772ST
MP776ST
MP782ST

(Projector models supported as of May 2010)

Notice
- When mounting a projector other than a SANYO model onto the projector bracket, mount it with the adjustment feet on the bottom of the projector retracted.
- Follow the steps below to mount a SANYO model.
  ❶ Extend the two adjustment feet by pulling them out.
  ❷ Pass the adjustment feet through hole A in the projector bracket.
  ❸ Move the projector bracket, move the adjustment feet of the projector to the positions shown in the figure below, then align the positions of the spacers with the holes for fastening the projector, and use the screws to fasten the projector.

Adjustment Feet

Hole A

Screw Fastening Positions
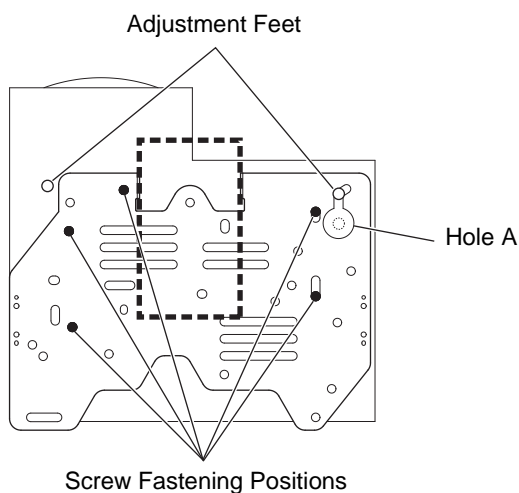
  ❹ Retract the adjustment feet.

1 **Secure the spacers (⑰) and bushings (⑱) used to secure the projector through the holes to be used for the projector model concerned on the projector bracket in such a way that the bracket is sandwiched between the spacers and bushings.**

- The spacers (⑰) used to secure the projector are secured in the holes whose positions are indicated by the initial of the projector brand.

Initial	Projector model name		No. of spacers
"P"	Panasonic	PT-ST10	3
"S"	SANYO	LP-WXL46(S)	5
"E"	EPSON	EB-410W	5
"O"	Optoma	EX525ST	4
"A"	Acer	S1200	3
"B"	BenQ	MP772ST MP776ST MP782ST	3

Bushing for Securing Projector (⑱)

Spacer for Securing Projector (⑰)
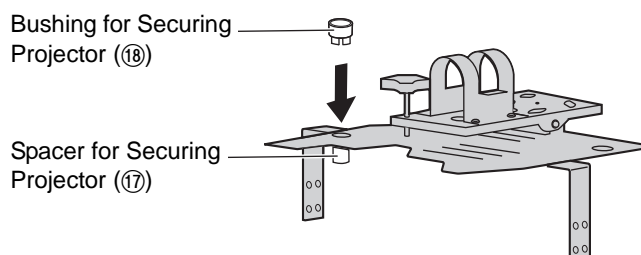
2 **Align the attached spacers with the holes used to suspend the bottom panel of the projector, and secure them using the screws (⑲)* for securing the projector.**

Screw for Securing Projector (⑲)*

Bushing for Securing Projector (⑱)

Spacer for Securing Projector (⑰)
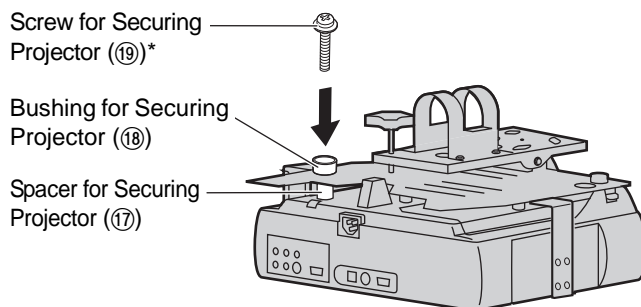
* For an Acer projector, use the screws (㉕) for securing the projector (for Acer) instead.

3 **Align the projector sub-bracket so that the projector fits in between, and secure both ends using the toothed washers (㉖) and the screws (⑳) for securing the projector sub-bracket.**

Screw for Securing Projector Sub-Bracket (⑳)

Projector Sub-Bracket

Toothed Washer for Securing Projector Sub-Bracket (㉖)
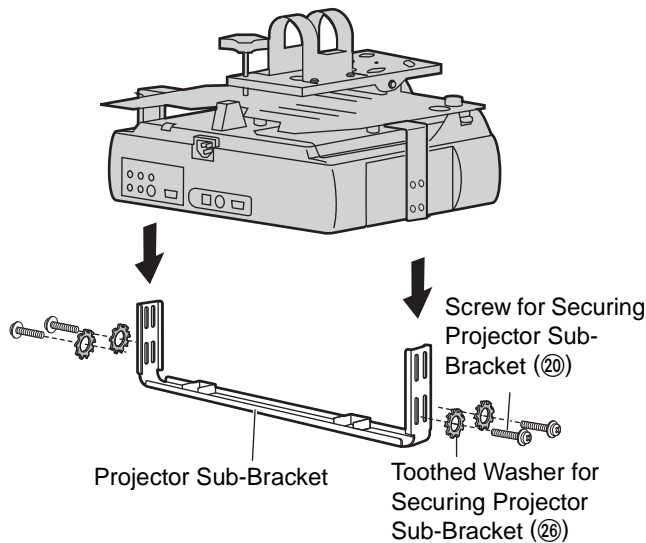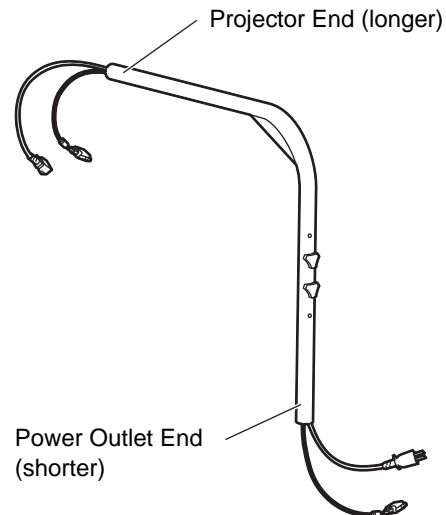
Notice

- Align the projector sub-bracket so that it supports the projector, leaving no gaps. Fasten the sub-bracket securely to the projector on both sides using the toothed washers (㉖) and screws (⑳) for securing the projector sub-bracket.

4 **Attach the screw (㉒) for securing the pipe bracket to the pipe bracket (㉑), and secure the pipe bracket to the projector bracket.**

Screw for Securing Pipe Bracket (㉒)

Pipe Bracket (㉑)

2 to 3 mm ($^3/_{32}$ to $^1/_8$ in.)
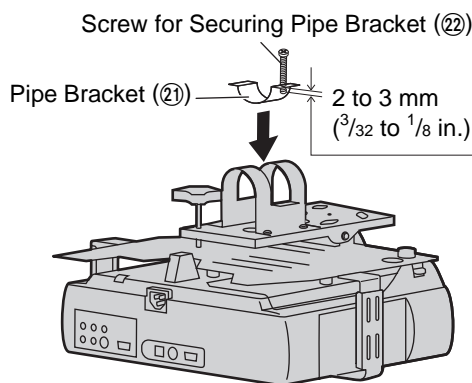
Mounting the Projector Arm

1 **Pass the power cable used for the projector and the video cable through the projector arm.**

Projector End (longer)
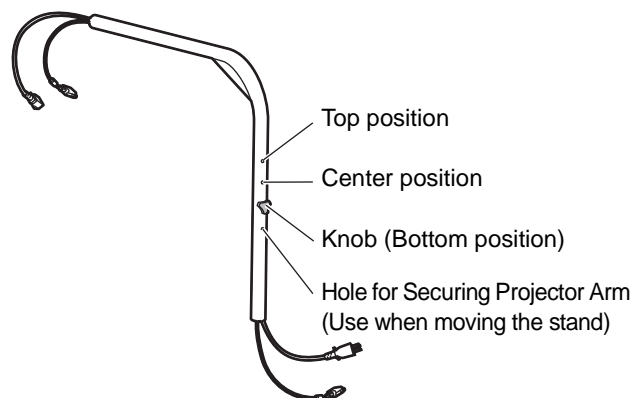

Power Outlet End (shorter)

Notice

- Ensure that the plugs to connect to the projector come out at the longer end of the projector arm (the part where the projector is mounted).
- If the outlet end of the power cable is too large to go through the projector arm, the projector arm cannot be mounted on the up/down unit.
  Pass a length of string (twine) through the projector arm, and then pass the cable with the string attached to it through the projector arm after the arm has been mounted on the up/down unit.

2 **Decide on the position of the knob provided on the rear on the projector arm, and fasten it tightly.**

For SANYO LP-WXL46(S)

Top position

Center position

Knob (Bottom position)

Hole for Securing Projector Arm (Use when moving the stand)

- The position where the knob is to be secured depends on the projector which is going to be used.

Top position	Panasonic PT-ST10
Center position	EPSON EB-410W
	Acer S1200
	BenQ MP772ST / MP776ST / MP782ST
Bottom position	SANYO LP-WXL46(S)
	Optoma EX525ST

Notice

- Keep the other knob for future use. After all installation work is finished, attach the knob to an empty hole on the board bracket (⑦) on the back of the board.

3 **Insert the projector arm from above into the pipe holding post of the up/down frame.**

- Introduce the ends of the power cable and video cable which have already been passed through the projector arm into the pipe holding post, and then insert the projector arm.

Pipe Hold Post
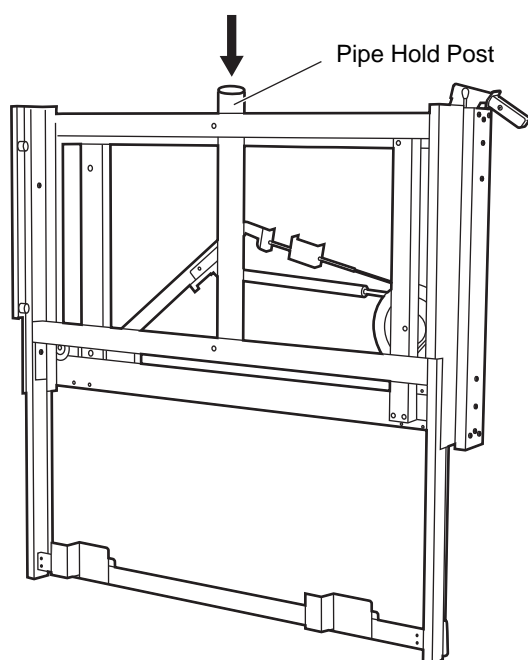
Notice

- When mounting the projector arm, ensure that its end does not hit anybody or anything in the vicinity.

4 **Mount the projector bracket, on which the projector unit has been mounted, onto the projector arm.**


A
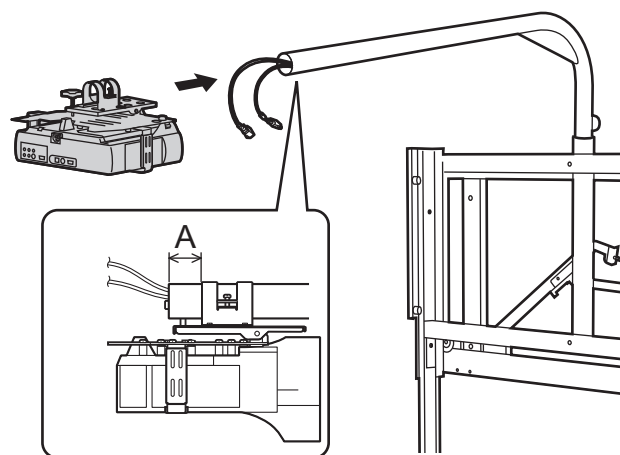
- The position where the projector is to be mounted depends on the model which is going to be used. Adjust the distance from the longer end of the projector arm (the part where the projector is mounted) to the projector bracket to what is indicated below, and secure the projector.

Model	A
Panasonic PT-ST10	22 cm (8 $\frac{21}{32}$ in.)
EPSON EB-410W	6 cm (2 $\frac{3}{8}$ in.)
Acer S1200	8 cm (3 $\frac{5}{32}$ in.)
BenQ MP782ST	8 cm (3 $\frac{5}{32}$ in.)
BenQ MP772ST / MP776ST	4 cm (1 $\frac{9}{16}$ in.)
SANYO LP-WXL46(S)	4 cm (1 $\frac{9}{16}$ in.)
Optoma EX525ST	8 cm (3 $\frac{5}{32}$ in.)

5 **Tighten up the screw (㉒) for securing the pipe bracket, and loosely secure the bracket to the projector arm.**

Screw for Securing Pipe Bracket (㉒)
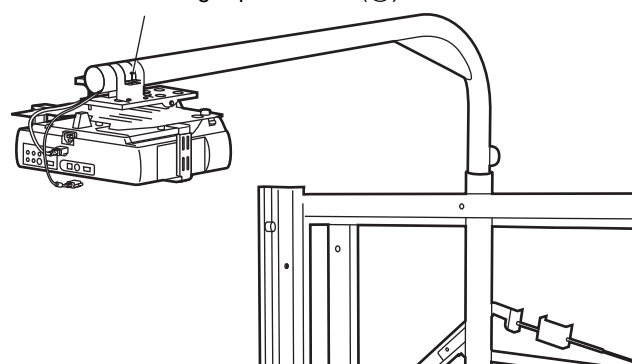
6 **Route and connect the power cable and video cable, which have already been passed through the projector arm, to the projector, and secure the pipe cap (㉓) using the screw (㉔) for securing the pipe cap.**

Pipe Cap (㉓)

Screw for Securing Pipe Cap (㉔)
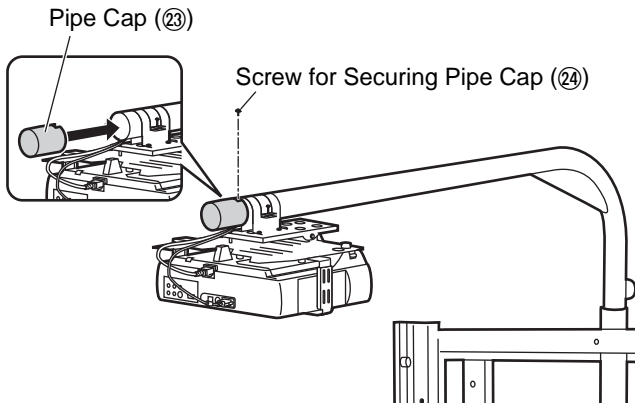
7 **Attach cable holder A (①) to the center wall side of the lift bottom stay, and route the power cable and video cable so that they point straight down.**

Lift Bottom Stay
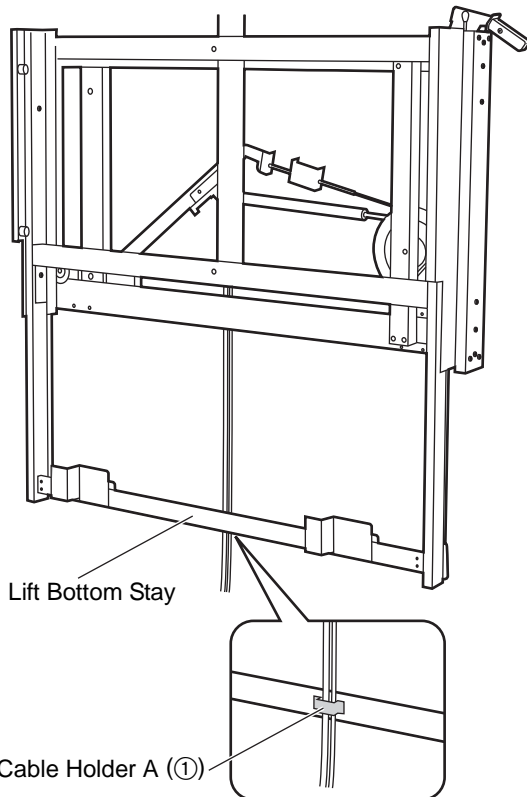
Cable Holder A (①)

- Use cable holder B (②) for cable management of the elite Panaboard and other equipment.
- Use the hook and loop fastener (③) for cable management of the computer on the table and cords connected to the plug adaptor.

Adjusting the Up/Down Unit

Align the position of the hold tube assembly, to which the gas spring is secured, with the elite Panaboard model to be installed, and set it.

Hold Tube Assembly

Adjustment Position

Gas Spring

M6 189 Screw

Arm 450
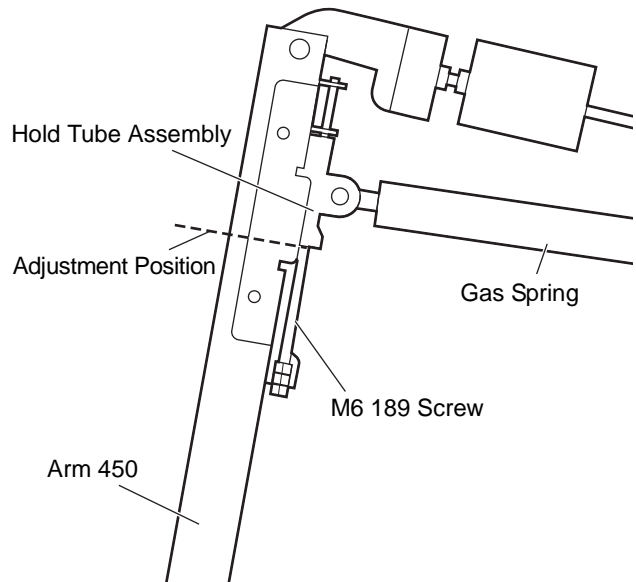
Model No.	Adjustment Position	Model No.	Adjustment Position
UB-T880W	9	UB-T781	2
UB-T880	7	UB-T780	1.5
UB-T781W	2.5	UB-T780BP	1

- Adjustment Tolerance: ± 1

1 Loosely secure the board bottom bracket to the position shown below.

- In the state the UB-T880 is shipped, the position where the board bottom brackets are secured is appropriate when using the SANYO LP-WXL46(S). The position where the bottom of the elite Panaboard is to be secured differs depending on the type of elite Panaboard to be installed.

Board Bottom Brackets

A   B
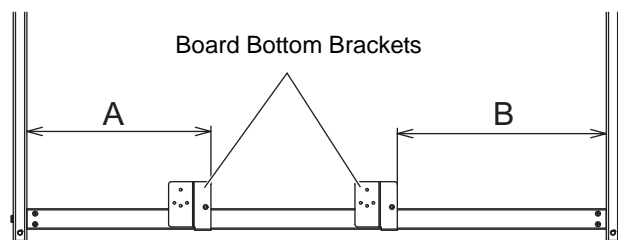
| Model No.	A	B
UB-T880W UB-T880	344.5 mm (1 ft. 1 $^9/_{16}$ in.)	389 mm (1 ft. 3 $^5/_{16}$ in.)
UB-T781W	156 mm (6 $^1/_8$ in.)	200 mm (7 $^7/_8$ in.)
UB-T781 UB-T780 UB-T780BP	94 mm (3 $^{11}/_{16}$ in.)	262 mm (10 $^5/_{16}$ in.)

Note

- The position at which the board bottom bracket is to be fixed applies to the SANYO LP-WXL46(S) projector.
  When any other projector is going to be used, move it from the position shown above by the dimensions given below.

	A	B
Panasonic	+ 147 mm (+ 5 $^{25}/_{32}$ in.)	− 147 mm (− 5 $^{25}/_{32}$ in.)
EPSON	+ 157 mm (+ 6 $^3/_{16}$ in.)	− 157 mm (− 6 $^3/_{16}$ in.)
BenQ	+ 145 mm (+ 5 $^{23}/_{32}$ in.)	− 145 mm (− 5 $^{23}/_{32}$ in.)
Acer	+ 182 mm (+ 7 $^5/_{32}$ in.)	− 182 mm (− 7 $^5/_{32}$ in.)
Optoma	+ 178 mm (+ 7 in.)	− 178 mm (− 7 in.)

2 Mount the elite Panaboard on the up/down unit.

- Attach the board brackets (⑦) to the left and right board attachments on the rear side of the elite Panaboard using screws (⑥) for securing each board bracket.
- Attach the lower-left bracket to the left side (outer side) of the left board attachment. Similarly, attach the lower-right bracket to the left side (inner side) of the right board attachment.

Board Brackets (⑦)

Board Brackets Fastening Screws (⑥)

Board Attachments
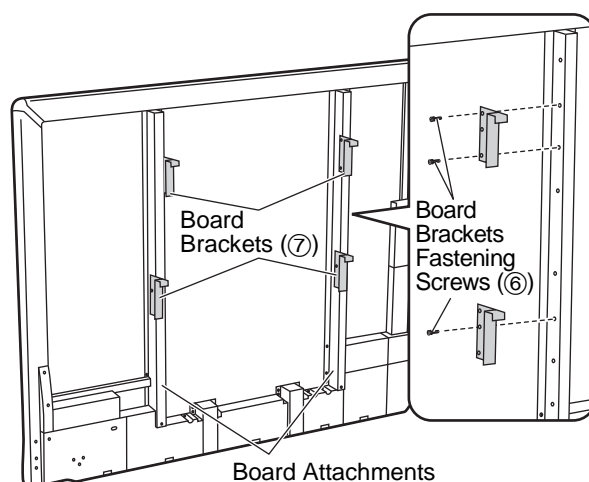
- With the help of another individual, take hold of the elite Panaboard, align it so that the board bottom bracket and the part for securing the elite Panaboard wall amount are aligned, and suspend the elite Panaboard at that position.
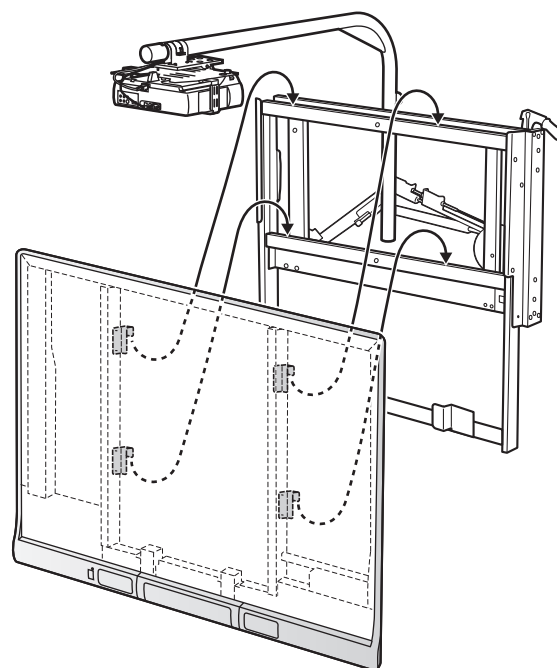
Notice
- Even when the elite Panaboard has been placed on the up/down unit, it has still not been secured in place. If any attempt is made to lift the elite Panaboard in this state, it may become disengaged from the up/down unit so do not lift it until it has been secured loosely.

3 **Loosely secure the elite Panaboard to the up/down unit**
- Remove the lower frame cover centered at the bottom of the elite Panaboard. Align the wall mount holes on the bottom of the board attachments with the left and right positions of the board bottom bracket (loosely secured to the up/down unit) and loosely secure them using the board mounting screws (⑤, one on each side).
- Depending on the model of elite Panaboard, the lower frame cover is removed differently and screws are in different positions. Refer to the Operating Instructions of the relevant elite Panaboard.

For UB-T880

Lower Frame Cover

Board Mounting Screw (⑤)
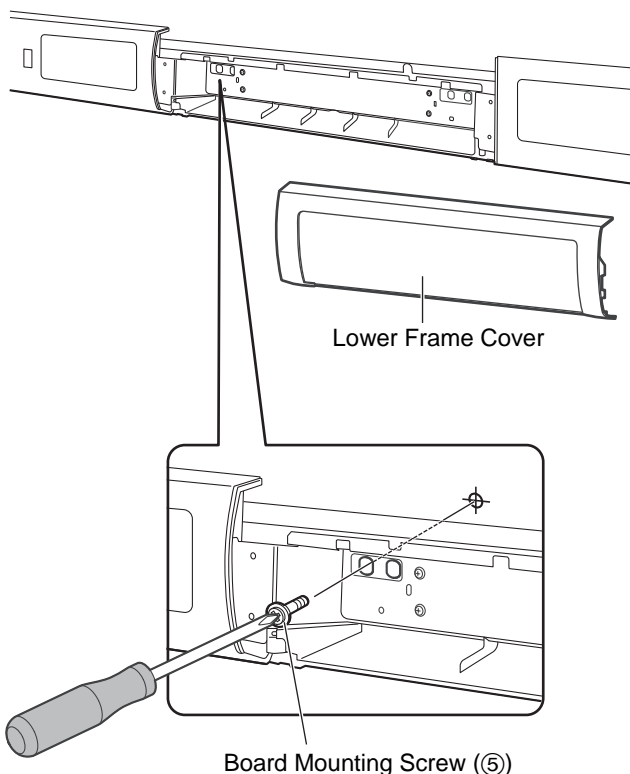
4 **After removing the up/down locking plates attached to both sides of the up/down unit, secure the elite Panaboard at the highest position.**
- The up/down locking plates are secured using screws. When removing them, remove the screws. After mounting the plates the other way round, tighten the screws again to secure them.


Up/Down Locking Plate
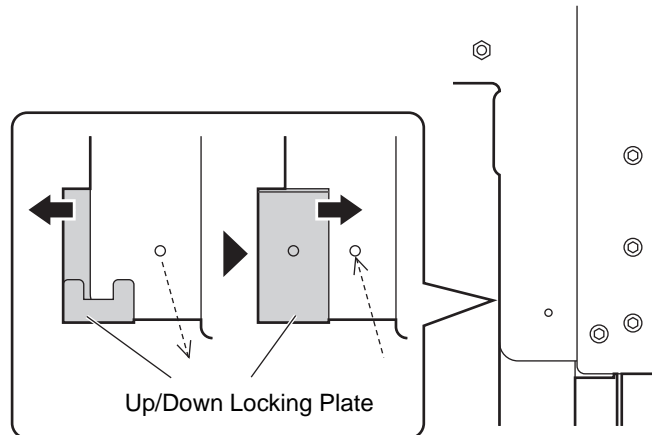
- Lift the elite Panaboard to the highest point and secure it with the safety brake.

Notice
- At this stage, compensation for board weight is not possible, and if a UB-T880W is mounted, it will gradually shift downward from the highest point. Also be aware that if a UB-T780, UB-T781, or UB-T780BP is mounted, it will gradually shift upward.
- When disposing of the system, be aware that the up/down unit may spring up when the elite Panaboard is removed from the up/down unit.
- At the time of shipment, the position was set for the UB-T880. When using a model other than the UB-T880, adjust the position of the up/down unit by taking the following steps.
- UB-T880: Refer to "Mounting the elite Panaboard" (page 33).

5 **Remove the loosely secured board mounting screws (⑤) and temporarily take the elite Panaboard off of the up/down unit.**
- Confirm that the position of the arm 450 is shown in the figure below.

Arm 450
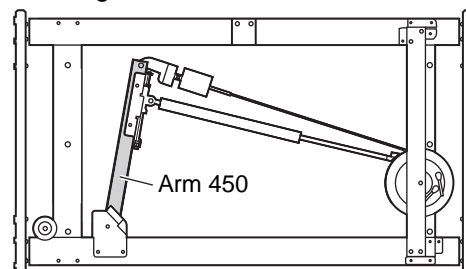
6 **Confirm that the M6 189 bolt and nuts A and B are in the correct positions. (The direction of rotation in instructions is relative to the part being adjusted as viewed from above.)**
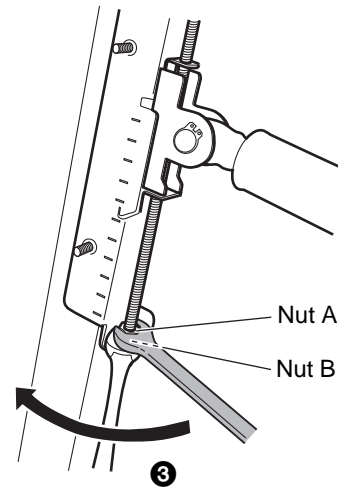
Hold Tube Assembly

"+" side

"–" side

Nut A

Nut B

M6 189 Screw

"–" side (Counterclockwise)
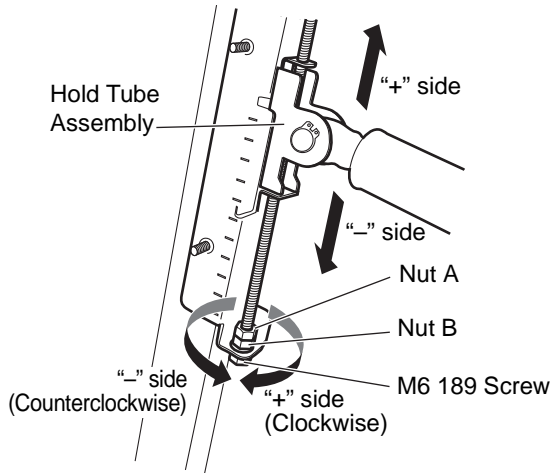
"+" side (Clockwise)

7 **Holding nut B in place with a 10 mm ($^{13}/_{32}$ in.) wrench, use another wrench to loosen nut A (counterclockwise), and then move the nut about 1 mm ($^{1}/_{16}$ in.) (❶).**

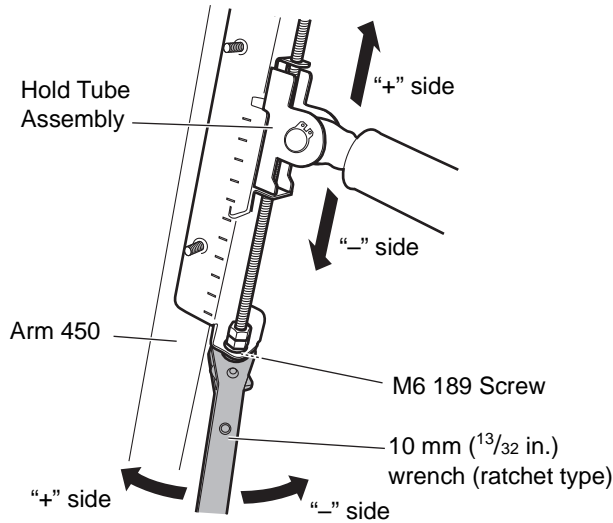Hold Tube Assembly

Nut A

Nut B

❶
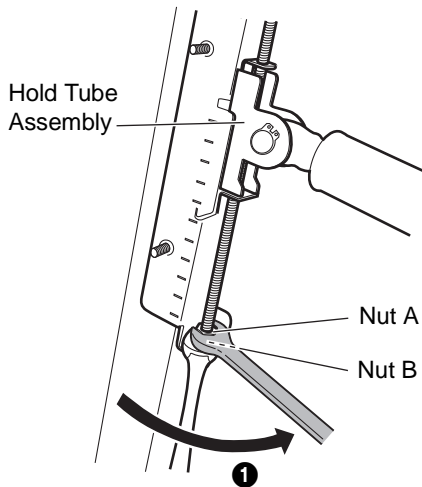
8 **Holding nut B in place with a 10 mm ($^{13}/_{32}$ in.) wrench, use another wrench to turn the M6 189 screw clockwise, and then move nut B about 1 mm ($^{1}/_{16}$ in.) (❷).**

Nut B

M6 189 Screw

❷
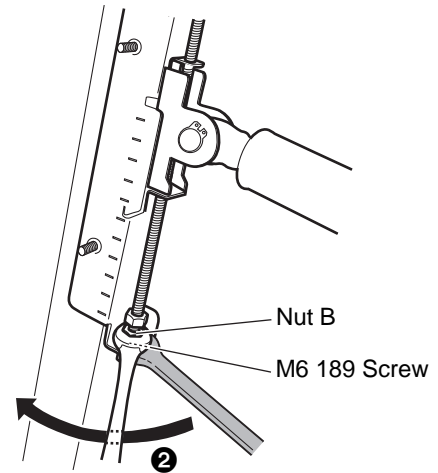
9 **Holding nut B in place with a 10 mm ($^{13}/_{32}$ in.) wrench, use another wrench to turn nut A clockwise, and then tighten nuts A and B (❸).**
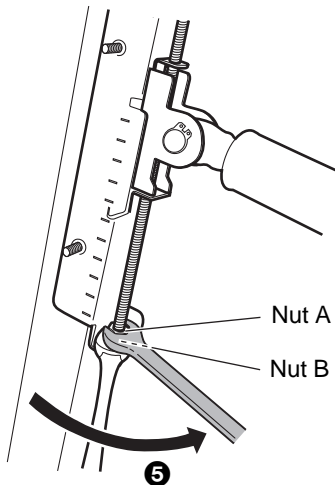
Nut A

Nut B

❸

10 **Turn the head of the M6 189 screw with a 10 mm ($^{13}/_{32}$ in.) wrench (ratchet type) and reposition the hold tube assembly to the adjustment position for the model to be mounted (❹).**
(Example: When mounting a UB-T880W, turn the M6 189 screw clockwise with a 10 mm [$^{13}/_{32}$ in.] wrench [ratchet type] and reposition the assembly from adjustment position 7 [as shipped] to adjustment position 9.)

Hold Tube Assembly

"+" side

"–" side

Arm 450

M6 189 Screw

10 mm ($^{13}/_{32}$ in.) wrench (ratchet type)

"+" side

"–" side

Note

- When the hold tube assembly is moved toward the "+" side of the arm 450, the load which can be supported by the arm assembly is increased. (When the UB-T880W is installed)
- Conversely, when the hold tube assembly is moved toward the "–" side of the arm 450, the load which can be supported by the arm assembly is reduced. (When the UB-T781, UB-T781W, UB-T780 or UB-T780BP is installed)

11 **Holding nut B in place with a 10 mm ($^{13}/_{32}$ in.) wrench, use another wrench to loosen nut A (counterclockwise, ❺).**

Nut A

Nut B

❺

12 **Holding nut B in place with a 10 mm ($^{13}/_{32}$ in.) wrench, use another wrench to turn the M6 189 screw counterclockwise. Tighten the screw until nut B is secure (❻).**

❻

Nut B

M6 189 Screw
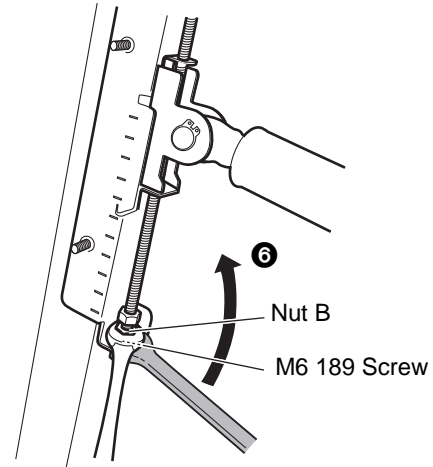
13 **Holding nut B in place with a 10 mm ($^{13}/_{32}$ in.) wrench, use another wrench to turn nut A clockwise, and then tighten nuts A and B (❼).**

Nut A

Nut B

❼
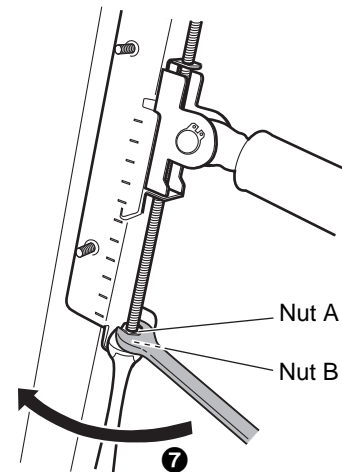
14 **Mount the elite Panaboard on the up/down unit again.**

Mounting the elite Panaboard

1 Align the wall mount holes on the bottom of the board attachments with the left and right positions of the board bottom bracket (loosely secured to the up/down unit) and secure them tightly using the board mounting screws (⑤, two on each side).

For UB-T880

Lower Frame Cover

Board Mounting Screws (⑤)
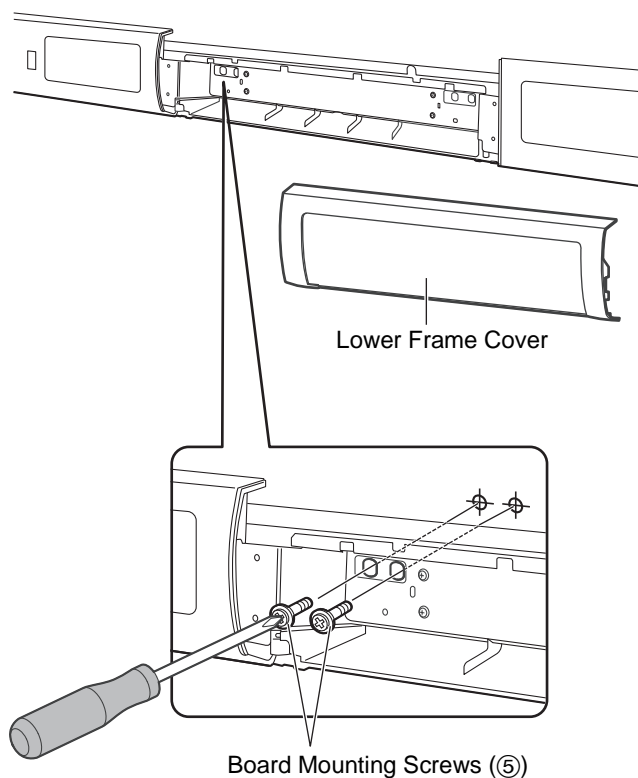
2 Try drawing the elite Panaboard toward you, and check that the elite Panaboard is fastened securely to the up/down unit.

- Confirm that the elite Panaboard is securely attached and does not move freely back and forth.

Checking the Up/Down Operations

- Confirm that the up/down part can easily be lifted higher than the pin end stopper.
- Confirm that the up/down part does not drop more than 20 cm (7 $^7/_8$ in.) of its own accord when released from the highest point.
  At this stage, check up/down operations, and if they are not balanced, remove the elite Panaboard and readjust the up/down unit.
- Check that none of the cables are stretched to their full length or sandwiched when the up/down operations are performed.

Wiring Connections

1 **Position the computer which you are going to use at the prescribed location, and connect the computer, projector and elite Panaboard as shown below.**
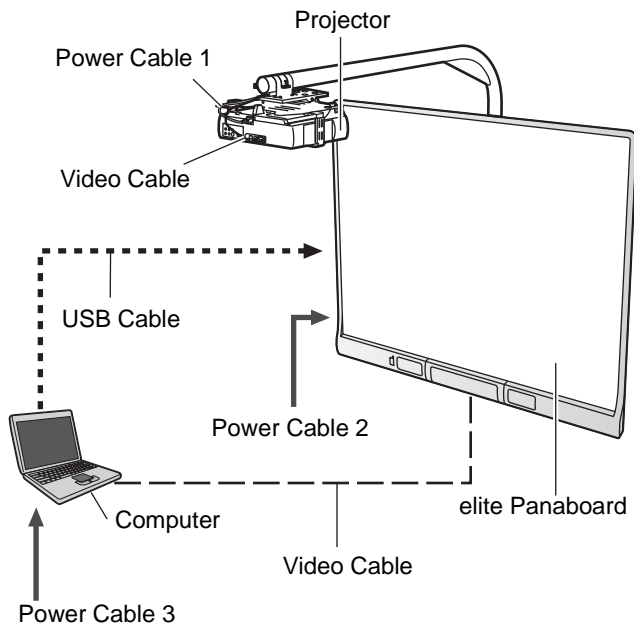
2 **Connect the power cables of the computer, projector and elite Panaboard to the table tap, and connect the plug of the table tap to the power outlet.**

Apply the High-Temperature Warning Label

1 **Turn on the power of the computer, projector and elite Panaboard in this order.**

2 **Apply the high-temperature warning label to the projector sub-bracket.**

- When projector vents face the right or left side, the projector sub-bracket may become hot. **On the bracket by projector vents**, apply the high-temperature warning label (㉗), as shown in the figure.


High-Temperature Warning Label (㉗)
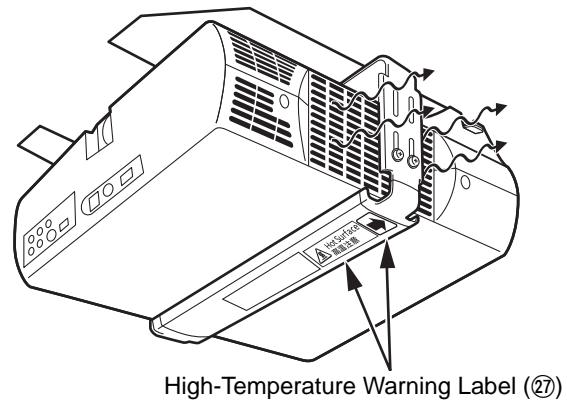
Projection Adjustments

1 **Project an image from the projector onto the screen of the elite Panaboard.**

2 **Adjust the projected image's size and projection position and eliminate trapezoidal distortion.**

■ Adjusting the Image Size

If projected images are too big or small, adjust the projector so that the image height is slightly smaller than the vertical area on the screen for image projection.
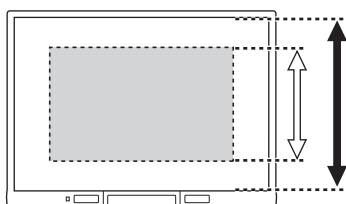

If the image size cannot be adjusted using the projector's controls, move the position of the projector bracket which was secured in "Mounting the Projector Arm" (step 4 on page 27) to adjust the image size.

Note
• Depending on the projector used, it may not be possible to fill the screen perfectly with projected images.

■ Adjusting the Left and Right Positions of the Images Projected on the elite Panaboard

After the height of the projected image has been adjusted, check the left and right positions of the image which is projected on the screen.
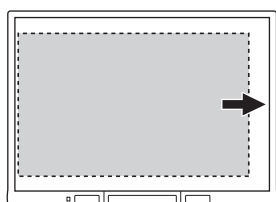
If the projected image markedly overlaps the frame on the right or the ultrasonic sensor on the left, return to "Mounting the elite Panaboard" (page 33), and adjust the position of the elite Panaboard.
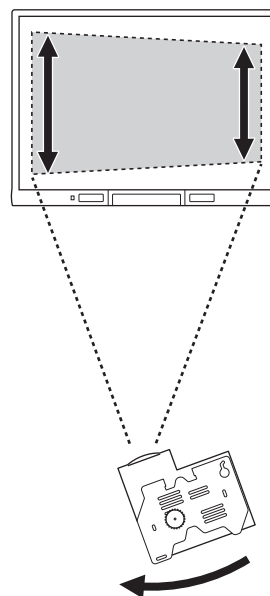
■ Adjusting the Projection Position

If the image of the projector is projected too far toward the top or bottom, turn the knob on the projector bracket, and adjust.

Knob
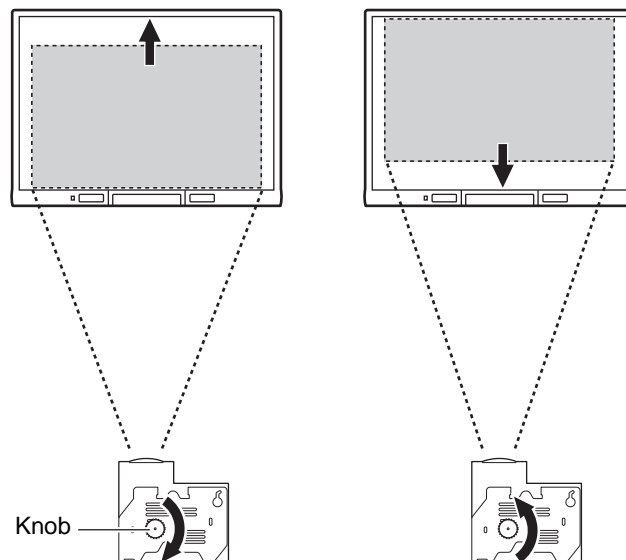
## ■ Eliminating Trapezoidal Distortion

Tilt the projector bracket to the left or right, and adjust it so that the left and right vertical lines of the projected image have the same length.


Use the image adjustment functions of the projector to eliminate the trapezoidal distortion of the projected images so that the projected images are rectangular.

Securing the elite Panaboard

1 **Tighten the two-wing bolts used to secure the board bottom bracket, and secure the elite Panaboard position.**

Two-wing Bolts
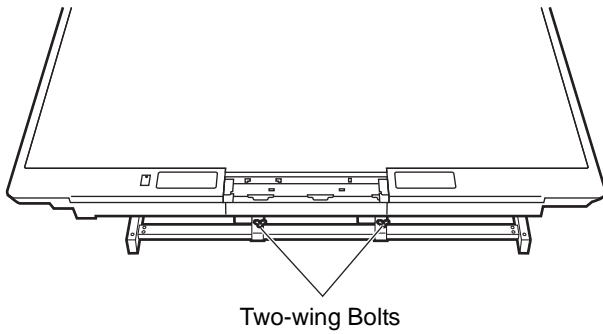
2 **Mount the lower frame cover of the elite Panaboard onto the center bottom part.**
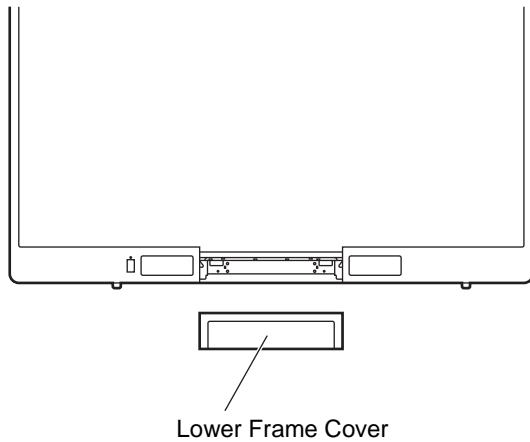

Lower Frame Cover

Checking the Operations of the elite Panaboard

For details of cleaning the screen and checking the operations of the elite Panaboard, refer to the Operating Instructions of the elite Panaboard.

Assembling the Stands
Assembling the Stand Table Unit

1 **Take the left stand and right stand out of the stand unit box, and use the three bolts and collars for each stand to secure the stands.**

- As shown below, with the bottom of the up/down unit taken out of the packing box, remove the up/down unit's three bolts and collars each for the left and for the right. (Spread cushioning material under the up/down unit to adjust the height.)

Up/Down Unit

Packing Box

Bolt*

Collar*

Flat Washer
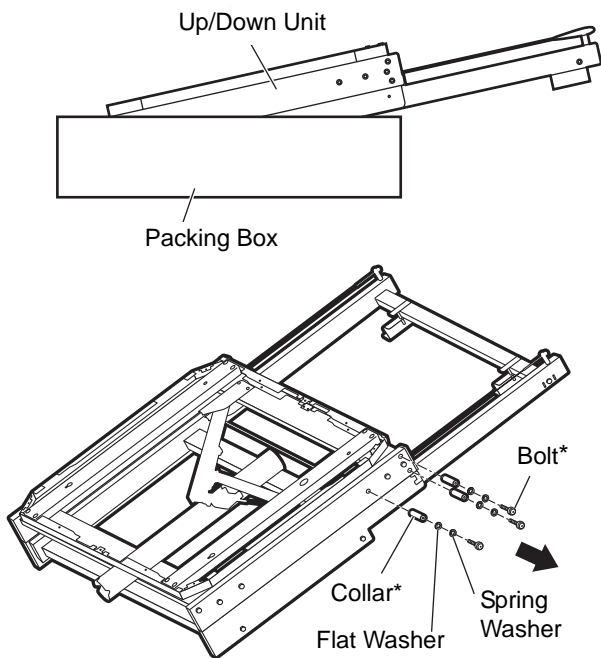
Spring Washer

* The bolts and collars which have been removed are not used.

- Loosely secure the left stand and right stand to the up/down unit using the bolts (⑧) for securing the left and right stands provided, the flat washers and spring washers which were removed, and the collars (⑨) for securing the left and right stands.
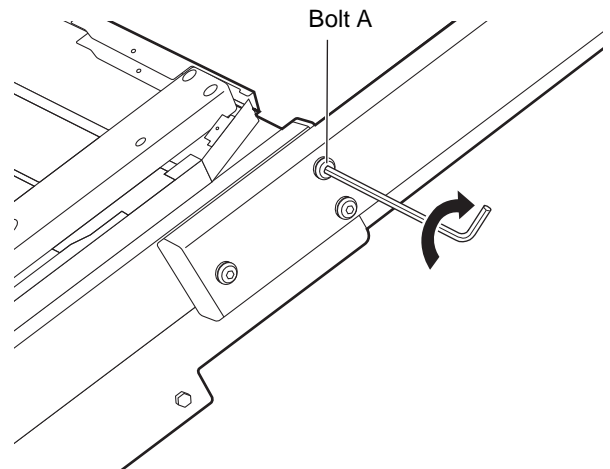
Bolt for Securing Left and Right Stands (⑧)

Flat Washer

Spring Washer

Collar for Securing Left and Right Stands (⑨)
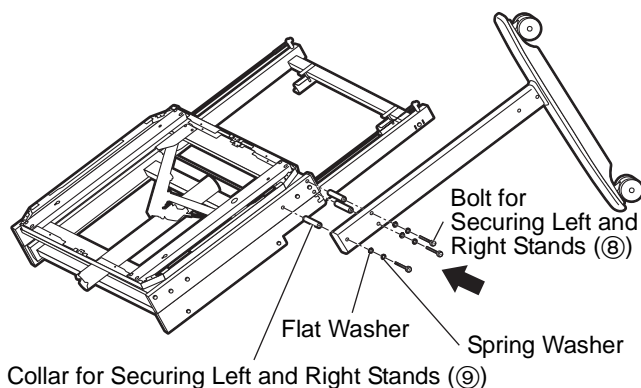
<u>Notice</u>
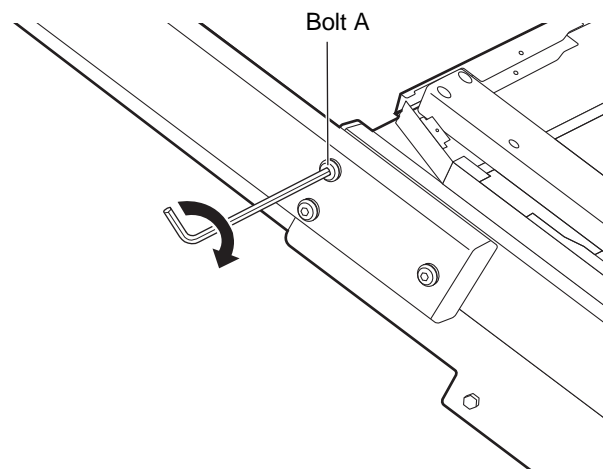- Mount the stands with the sides provided with the locking casters pointed upward.

2 **Tighten bolts A.**

- Use a 4 mm ($5/32$ in.) allen key to tighten bolts A, and secure the stand part and the up/down unit.

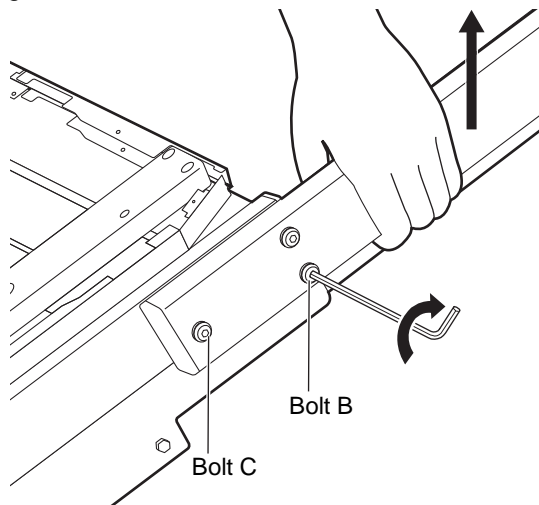Right Stand

Bolt A

Left Stand

Bolt A

3 **Pull up the pipe part of the stand by hand while tightening bolts B and C in this order.**

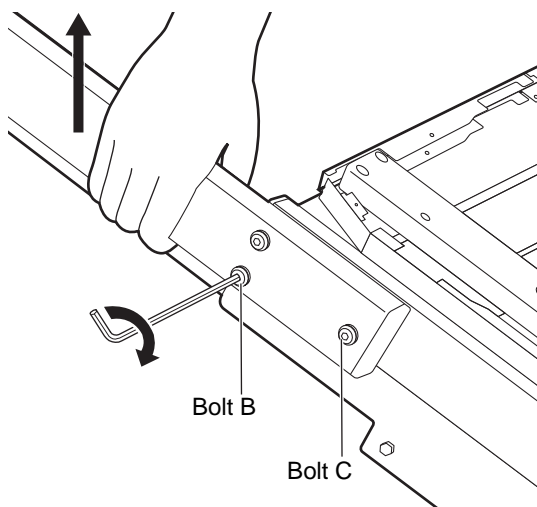**Notice**
• Take hold of the pipe part of the stand and, with the up/down unit pulled up, tighten the bolts.

Right Stand

Bolt B
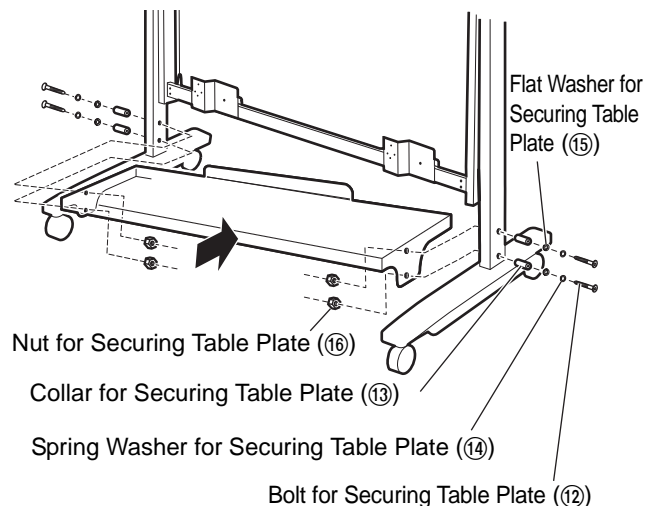
Bolt C

Left Stand

Bolt B

Bolt C

4 **Tighten up bolts A, B and C securely.**

5 **After attaching the left and right stands, place the assembled parts upright, and check that there is no play either at the front or back or at the left or right.**

• If there is any play in the stand after the assembled parts have been placed upright, slightly loosen the three bolts each at the left and right, adjust so that the play in the stand is eliminated, and then tighten up the bolts again.

6 **Secure the table plate between the left and right stands.**

Flat Washer for Securing Table Plate (⑮)

Nut for Securing Table Plate (⑯)

Collar for Securing Table Plate (⑬)

Spring Washer for Securing Table Plate (⑭)

Bolt for Securing Table Plate (⑫)

• Tip the table as you insert it between both sides of the stand. Align the table with the position of the bolt holes, and then tighten the bolts.

Notice
• Securely tighten the bolts (⑧) for securing the left and right stands using a force of 5.2 N•m ± 0.5 N•m (53 kgf•cm ± 5 kgf•cm).

7 **Attach the foot reinforcing assemblies.**

• Rotate the casters so that the caster bodies are turned toward the inside. While taking hold of the release levers on the foot reinforcing assemblies, insert the assemblies into the stand, and align the pins with the holes in the base.

Foot Reinforcing Assembly

Pin
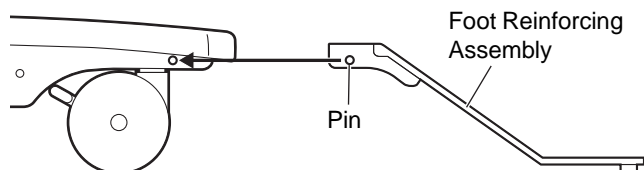
Preparing to Mount the Projector
→ Refer to "Preparing to Mount the Projector" (page 24) under "Wall Mounting Construction".

Mounting the Projector Arm
→ Refer to "Mounting the Projector Arm" (page 26) under "Wall Mounting Construction".

Adjusting the Up/Down Unit
→ Refer to "Adjusting the Up/Down Unit" (page 28) under "Wall Mounting Construction".

Mounting the elite Panaboard
→ Refer to "Mounting the elite Panaboard" (page 33) under "Wall Mounting Construction".

Checking the Up/Down Operations
→ Refer to "Checking the Up/Down Operations" (page 33) under "Wall Mounting Construction".

Wiring Connections
→ Refer to "Wiring Connections" (page 34) under "Wall Mounting Construction".

Apply the High-Temperature Warning Label
→ Refer to "Apply the High-Temperature Warning Label" (page 34) under "Wall Mounting Construction".

Projection Adjustments
→ Refer to "Projection Adjustments" (page 35) under "Wall Mounting Construction".

Securing the elite Panaboard
→ Refer to "Securing the elite Panaboard" (page 36) under "Wall Mounting Construction".

Attaching the Protective Cover

Attach the protective cover to the rear surface as shown in the diagram below.

- To mount the protective cover, pass the screws (⑩) for securing the protective cover through the flat washers (⑪) for securing the protective cover. Then use the screws to secure the cover.


Protective Cover
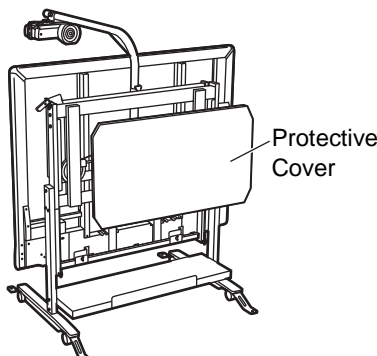
Securing the Up/Down Stand Kit

When using the system with the up/down stand kit, the system may fall over if a child should hang or swing from the projector arm, for example. After deciding where the system will be used, to prevent tipping, drive the anchors into the floor and secure the rear foot reinforcing assemblies with M8 bolts before use.

1 Move the assembled up/down stand kit to the place where the system will be used, and decide on where it is to be anchored.

2 On the floor, mark off the hole positions made at the centers of the rear foot reinforcing assemblies, and move the up/down stand kit aside.

3 Drill two holes in the floor using a drill.

4 Secure the anchors in the holes.

5 Return the up/down stand kit to where it is to be anchored, and secure the rear foot reinforcing assemblies using the M8 bolts with flat washers and spring washers attached to them.

Note
- **The specified pull-out strength is required per anchor.**
  M8 anchor bolts are used.
  Specified pull-out strength: 5,197.5 N (530 kgf)
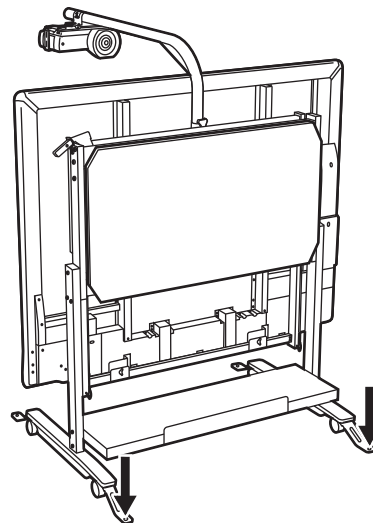
- When the floor is not concrete, reinforce the floor so that it can support the up/down stand kit.

Checking the Operations of the elite Panaboard

For details of cleaning the screen and checking the operations of the elite Panaboard, refer to the Operating Instructions of the elite Panaboard.

For users in Turkey	Türkiye'deki kullanıcılar için
EEE Complies with Directive of Turkey.	EEE Yönetmeliğine Uygundur.

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