

# **StarBoard FX-77G/FX-63G/FX-82WG**

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## **User's Guide**

Read this User's Guide and carefully retain it for future reference.
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Before using this product, carefully read and fully understand the safety instructions. Store this User's Guide nearby for ease of reference.
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**FX-ML110801**

**Hitachi Solutions**

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## **Precautions Regarding Disposal**

At time of disposal, handle this product as industrial waste according to all applicable laws and regulations.

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## **Product Assurance Provisions**

This product is limited to use in the country where the user bought this product.  
For warranty details, refer to Appendix E at the end of this user's guide.

This second version of the User's Guide (FX-ML110801) is for the following products:

AH00133:	StarBoard FX-77G (Wired)
AH00134:	StarBoard FX-77G (Wireless)
AH00135:	StarBoard FX-63G (Wired)
AH00136:	StarBoard FX-63G (Wireless)
AH00137:	StarBoard FX-82WG(Wired)
AH00138:	StarBoard FX-82WG(Wireless)
K-W033-021:	Floor Stand

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### **Manual Creation Dates**

August 2011 second edition **FX-ML110801**

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## Safe Handling

### Markings and Symbols

Various markings and symbols are used in this user's guide and on this product, to ensure the safe and correct use of this product and to prevent personal injury and property damage. These symbols and their meanings are as explained below. Understand the information well before reading the body of the user's guide.



This is a Safety Warning symbol. This symbol will appear to raise the attention of the user to existing risks that may cause harm to people.

To avoid any chances of injuries or possibly death,

**DO NOT IGNORE** the safety instructions that follow this symbol.



#### **WARNING**

This warning will appear where there exists a risk of death or fatal injuries.



#### **CAUTION**

This warning will appear where there exists a risk of moderate or light injuries.

#### **NOTICE**

This warning will appear where there exists a risk of damage to property.



This symbol draws attention to cautions (including warnings).







This symbol indicates something prohibited.







This symbol indicates something that must be done.



**Safety Precautions** Always comply with them.

**(1) Precautions Regarding Operation**







 <b>CAUTION</b>	
	<p><b>Do not make modifications.</b> Do not make any adjustments, repairs, or modifications not given in this User's Guide as doing so may lead to personal injury or damage to the product.</p>
	<p><b>Do not open or remove the rear cover, cabinet, or cover to this product.</b> Failure to comply may lead to personal injury or damage to the product. Refer internal inspections, adjustments, and repairs to your dealer or support center.</p>
	<p><b>Do not place objects on top of this product.</b> If a foreign object falls on top of or inside this product, it may lead to personal injury or damage to the product.</p>



<b>NOTICE</b>	
	<p><b>Do not use a USB cable other than the one supplied.</b> Use of a USB cable other than the one supplied may result in malfunction.</p>
	<p><b>Do not place heavy objects on, pull on, or subject the USB cable to excess heat.</b> Failure to comply may result damage to the USB cable.</p>
	<p><b>Always grasp the plug of the USB cable when connecting or disconnecting.</b> Pulling on the USB cable may result in scratching or damage to the cable.</p>
	<p><b>Always lock the casters with stoppers on the front side after installing this product.</b> Failure to lock the casters may allow the product to move or slide.</p>

**(2) Dealing with Trouble**



<b>NOTICE</b>	
	<p><b>What to do in case of emission of smoke, strange odor, or strange noise</b></p> <p>If an abnormal condition such as emission of smoke, strange odor, or strange noise happens to occur for some reason, immediately disconnect the product's USB cable from the PC.</p> <p>Confirm that the smoke or strange odor is no longer being emitted and contact a support center to request repairs.</p> <p>Continued operation without repair may result in fire.</p>
	<p><b>What to do if the product breaks or the USB cable is damaged</b></p> <p>If this product breaks or the USB cable becomes damaged for some reason, immediately disconnect the USB cable from the PC and contact a support center.</p> <p>Continued operation without repair may result in emission of a strange odor or smoke.</p>



**(3) Precautions Regarding Handling**

 <b>WARNINGS</b>	
	<p><b>Do not hang from or climb on this product.</b></p> <p>Failure to comply may result in personal injury if the product falls, collapses, or breaks into pieces. Be particularly careful in the case of small children.</p>
	<p><b>Do not touch this product if you hear thunder.</b></p> <p>Failure to comply may result in electric shock.</p>
 <b>CAUTIONS</b>	
	<p><b>Do not use batteries other than those specified.</b></p> <p>Failure to comply may result in fire, personal injury, and/or soiling of the surrounding area due to batteries bursting or leaking fluid.</p>
	<p><b>Do not splash with water or chemical compounds.</b></p> <p>Do not place this product in a location subject to contact with water droplets or place any containers containing water or other chemical compounds on top of or nearby this product.</p> <p><b>Failure to comply may result in damage or fire if water or chemical compounds get inside this product.</b></p>





<b>NOTICE</b>	
	<b>Disconnect the USB cable during extended periods of non-use.</b> For safety reasons, disconnect the USB cable if the product is not going to be used for an extended period of time. Failure to comply may result in fire.
	<b>Handle the connection cable properly.</b> Improper handling of the connection cable such as jamming it against a wall, undue bending, pulling, or twisting may result in overheating or damage due to exposure of the conductive core, electrical short, or severing of the cable.



#### (4) Precautions Regarding Moving the Product



 <b>CAUTIONS</b>	
	<b>Always use two or more people to move this product.</b> This product is a very large and heavy precision instrument. Always use two or more people and take great care when moving this product. Result in the personal injury or breakdown if the product falls over.

<b>NOTICE</b>	
	<b>Always disconnect the USB cable from the PC when moving this product.</b> Failure to comply may result in damage to the USB cable and/or the product itself.
	<b>Do not subject to shock of impact.</b> This product is a precision instrument. Excessive shock of impact may hinder further operation. Take extreme care when moving this product.






**(5) Precautions Regarding Setup Environment**

 <b>WARNINGS</b>	
	<p><b>Wall mounting work should be performed by a construction specialist.</b> Improper work may result in death or personal injury due to the product falling during operation. Always use the specified mounting unit.</p>
	<p><b>Improper assembly may cause the product to fall over.</b> There is risk of personal injury if the product falls over. Completely tighten the screws of all individual parts.</p>
	<p><b>Do not place in a location with flammable or corrosive gas.</b> Placing this product in a location where there is flammable or corrosive gas may result in fire or damage to this product. There is a particular danger of explosion in the case of flammable gas. Do not place in a location with flammable or corrosive gas.</p>


 <b>CAUTIONS</b>	
	<p><b>Do not touch internally mounted parts.</b> Directly touching internally mounted parts inside this product may result in personal injury or damage to this product.</p>

<b>NOTICE</b>	
	<p><b>Do not place in locations subject to excess moisture, dust, smoke, or steam.</b> Placement in a location such as next to a kitchen or a humidifier may result in fire or damage to this product.</p>
	<p><b>Do not use this product near water.</b> If water somehow gets inside this product, immediately disconnect the USB cable and contact a support center. Continued use may result in fire or damage to this product.</p>



<b>NOTICE</b>	
	<b>Regarding the setup environment</b> Set up this product on a level floor surface with a weight bearing capacity of 150 kg/m <sup>2</sup> or more, and which is made of floor materials that will not deform or become depressed due to movement by casters.
	<b>Do not use this product in locations subject to high temperature or high humidity.</b> This product's usage environment conditions: Temperature: 16°C – 35°C Humidity: 20%RH – 80%RH (no condensation)
	<b>Do not set up in locations subject to vibration and/or shock of impact.</b> Vibration and/or shock of impact may harm internal components of this product, resulting in damage to it. Do not set up this product in a location subject to vibration or shock of impact.
	<b>Do not set up this product near a high-voltage line or power source.</b> If this product is set up near high-voltage lines or power sources, it might receive interference.
	<b>Do not set up in a location subject to direct sunlight or near a heater.</b> Failure to comply may result in deformation of or damage to this product.

**(6) Precautions Regarding Disposal**

<b>NOTICE</b>	
	<b>At time of disposal, handle this product as industrial waste according to all applicable laws and regulations.</b> When disposing of this product, the user should follow all laws and regulations of the locality in which it is being used.

## Safety Precautions

Always comply with them.



### WARNINGS

**In the following cases, unplug the product from the mains and ask the dealer.**

- a. After the mains lead or power supply plug is damaged.
- b. After a liquid is spilled onto the main unit.
- c. After the main unit is exposed to rain or water.
- d. After this product malfunctions, even when operated according to the instruction manual. Adjust this product within the ranges specified in the instruction manual. Do not make other adjustments. A qualified service representative is required to correct improper adjustments.
- e. After this product falls or after its cabinet is damaged.
- f. After the functionality of this product changes and repair by a service representative is considered necessary.

### Precautions Regarding Operation

Wireless models use 2.4GHz radio frequency and users must follow:

- a. Keep away from medical devices such as heart pacer.
- b. Keep away from licensed / non-licensed radio stations.
- c. The device may cause slower performance or interference with IEEE802.11g/b wireless devices. Switch off other wireless devices when they are not used.
- d. Change the location of the device if it does not work near other wireless devices.
- e. Keep remove shielding objects between the StarBoard and the receiver.
- f. Keep away from other electric devices. Microwave may cause the interference.

Careful thought was given to the cautions on this device and in this user's guide. However, unanticipated circumstances might occur. When operating this product, users themselves must exercise caution as well as follow instructions.

 **CAUTIONS**

Caution Details	Page(s)
<p><b>Fasten the screws tightly.</b> Otherwise, the stand might fall and cause injury or the impact of the falling board might cause damage.</p>	P.1-6
<p><b>This work should be performed by at least two people.</b> The board might fall and cause injury or its impact might cause damage.</p>	P.1-7 P.1-8 P.1-10
<p><b>Fasten the screws tightly.</b> The board might fall and cause injury or its impact might cause damage.</p>	P.1-7 P.1-8
<p><b>Before installation, take the wall material into consideration.</b> If it is installed by using a method inappropriate for the wall material, the board might fall. Also, installation might be impossible, depending on the wall selected. For details, consult your dealer.</p>	P.1-9
<p><b>Before installation, take the wall strength into consideration.</b> Before using the StarBoard, make sure that it has been fastened securely so that it will not fall. Also verify that the wall mounting bracket is strong enough to support a weight of approximately 88.2lb. /40 kg.</p>	P.1-9
<p><b>Be sure to install batteries correctly.</b> Do not install batteries with positive and negative terminals reversed, or use batteries other than the type specified. It will cause pen malfunctions and excess heat, or burns to the hand.</p>	P.2-1
<p><b>Be sure to provide insulation during disposal.</b> Be sure to insulate the positive and negative terminals of the battery using cellophane tape, or similar material when disposing of batteries. Disposing of batteries without insulating them may lead to overheating, bursting, or ignition due to shorting, resulting in personal injury or fire. Furthermore, be sure to follow all local rules and regulations regarding proper battery disposal. If within the EU, be sure to follow Batteries Directive.[Batteries directive (2006/66/EC)]</p>	P.2-1

**Contents**

<b>Notices</b> .....	<b>1</b>
<b>Precautions Regarding Disposal</b> .....	<b>1</b>
<b>Disclaimers</b> .....	<b>1</b>
<b>Product Assurance Provisions</b> .....	<b>2</b>
<b>1. Introduction</b> .....	<b>1-1</b>
1.1 Preparations .....	1-1
1.1.1 Product Outline.....	1-1
1.1.2 Features .....	1-1
1.2 Parts Check .....	1-2
1.2.1 StarBoard .....	1-2
1.2.2 Stand(Optional unit).....	1-3
1.3 Role of Each Part .....	1-4
1.3.1 StarBoard .....	1-4
1.3.2 Function Area.....	1-5
1.3.3 Electronic Pen .....	1-5
1.4 Assembly and Setup.....	1-6
1.4.1 Stand Setup Method.....	1-6
1.4.2 Wall-Mounting Setup Method .....	1-9
1.4.3 How to Connect When Using Projection Mode .....	1-11
<b>2. Usage</b> .....	<b>2-1</b>
2.1 Basic Usage .....	2-1
2.1.1 Preparation .....	2-1
2.1.2 How to Use Electronic Pen.....	2-2
2.1.3 Basic operation of Electronic Pen.....	2-3
2.1.4 Electronic Pen Setting .....	2-3
2.1.5 Replacing Electronic Pen Tip .....	2-4
2.2 How to Use StarBoard in Projection Mode.....	2-5
2.2.1 Wired Connection(Windows version).....	2-5
2.2.2 Wired Connection(Mac version) .....	2-6
2.2.3 Wireless Connection(Windows version) .....	2-7
2.2.4 Wireless Connection(Mac version).....	2-7
<b>3. Appendix</b> .....	<b>3-1</b>
A. Troubleshooting .....	3-1
B. System Specifications.....	3-4
C. Maintenance of your StarBoard .....	3-6
D. Replaceable Parts .....	3-6
E. Provisions of Product Warranty.....	3-7

## 1. Introduction

### 1.1 Preparations

This chapter describes the preparations to be made before using StarBoard. First-time users of StarBoard should read through this chapter.

#### 1.1.1 Product Outline

The StarBoard FX-77G/FX-63G/FX-82WG Series is an extremely convenient and easy-to-use electronic whiteboard. After setting up the provided software on a PC that is connected to a projector, you can use Electronic pen that is included with the product to operate the PC or import to the PC in real time characters or images that are drawn on the whiteboard.

#### 1.1.2 Features

- You can use Electronic pen to operate the PC  
You can use Electronic pen to operate a PC screen that is projected onto the board with a projector.
- You can write directly onto the PC screen  
After installing the provided StarBoard Software onto a PC, you can use Electronic pen to write characters or images directly onto the PC screen. The input characters or drawn images are imported as digital data in real time into the PC, where they can be saved or printed.
- Compatible with PowerPoint presentations  
Characters or images can be written into presentations created with Microsoft PowerPoint, which significantly improves the expressive power of the presentations.
- You can also write on video images (For Windows)  
Characters or images can be written onto captured video image displays. This makes it easy to use video materials in lessons or presentations.
- You can connect StarBoard to your PC wirelessly  
There are two types of StarBoard, the wired model that uses a serial interface to connect to the PC, and the wireless model that uses the Bluetooth to connect to the PC wirelessly. By sending and receiving data between the StarBoard and PC wirelessly, the wireless model enables you to install the StarBoard neatly, without the clutter and untidiness of wires. (Only available for wireless models)

**1.2 Parts Check**

After unpacking, make sure that all of the following parts are present.

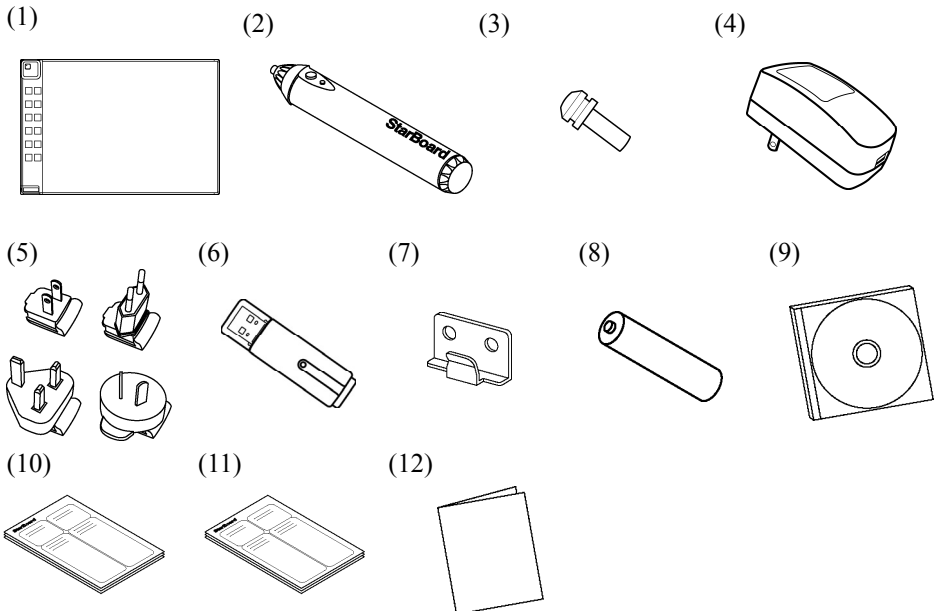
**1.2.1 StarBoard****(1) Parts**

No.	Name	Qty.
(1)	Board	1
(2)	Electronic pen	1
(3)	Tip of Electronic pen	2
(4)	AC Adaptor (*1)	1
(5)	AC Adaptor Plug (*1)	4
(6)	Bluetooth Adaptor (*2)	1
(7)	Wall mounting bracket	2
(8)	AA alkaline Battery	2
(9)	StarBoard Software x.x (DVD-ROM) (*3)	1
(10)	StarBoard FX Startup Guide	1
(11)	StarBoard Software Startup Guide	1
(12)	Warranty Sheet	1

(\*1) (4),(5) is bundled only if the StarBoard FX-77G(Wireless) or StarBoard FX-63G(Wireless) or StarBoard FX-82WG(Wireless) is purchased.

(\*2) (6) is bundled only if the Bluetooth Adapter is purchased.

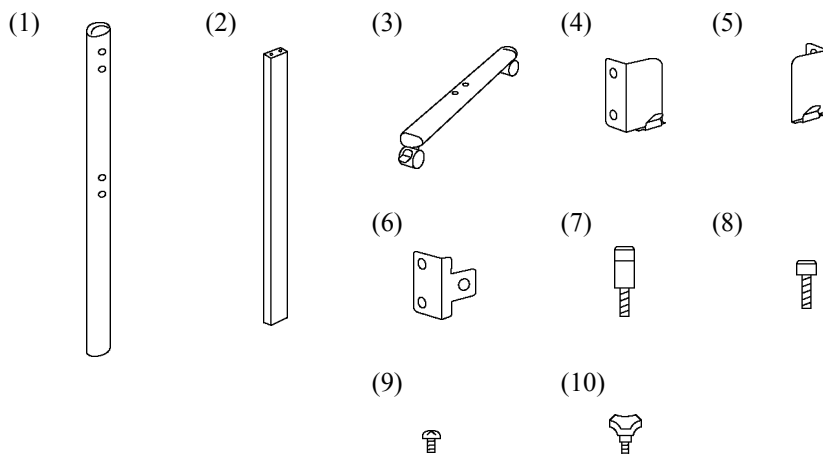
(\*3) The term “x.x.” as used in this manual denotes the same version as the software which is included with the accessories.



## 1.2.2 Stand(Optional unit)

### (1) Parts

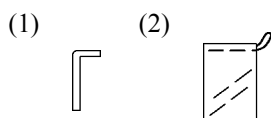
No.	Name	Qty.
(1)	Stand vertical support	2
(2)	Stand crossbar	2
(3)	Stand foot with casters	2
(4)	Board receiving bracket (left-hand version)	1
(5)	Board receiving bracket (right-hand version)	1
(6)	Board fixing bracket	2
(7)	Hex socket head cap screw, with collar	8
(8)	Hex socket head cap screw	4
(9)	Panhead screw	8
(10)	Triangular knob screw	2



### (2) Accessories

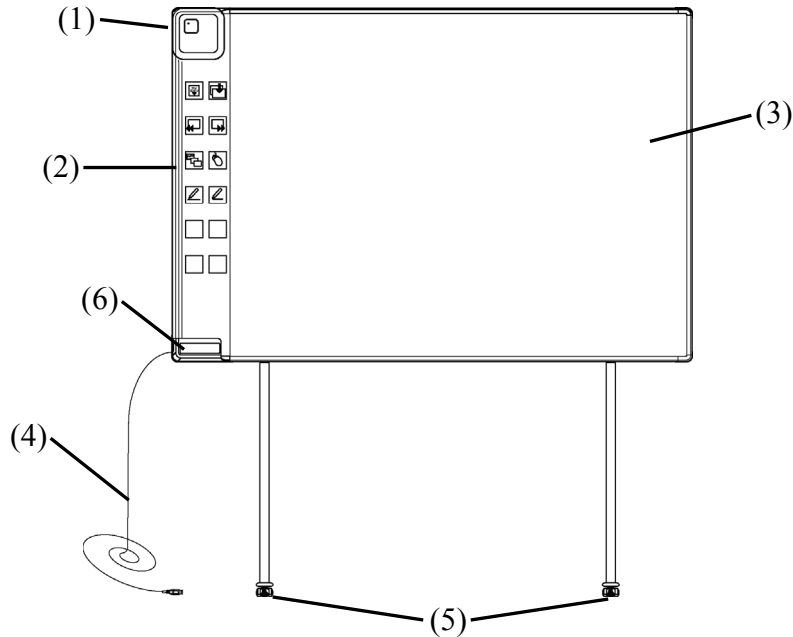
No.	Name	Qty.
(1)	Allen wrench	1
(2)	Allen wrench holder	1

(2) is used to prevent the loss of the Allen wrench. Hang it in the appropriate place on the stand.



## 1.3 Role of Each Part

## 1.3.1 StarBoard

**(1) Digitiser**

Receives information regarding annotations and graphics drawn with the electronic pen, and transmits this data to the PC. Green light indicates a wired connection, and blue light indicates a wireless connection.

**(2) Function Area**

Buttons that shortcut the functions used frequently in applications are located here. Please refer to the next page for details.

**(3) Pen Input Active Area**

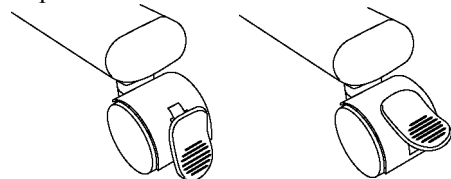
Annotations and graphics drawn in this area are stored into the PC. When using the StarBoard in the Projection Mode, confine to this area the images projected by the projector.

**(4) USB Cable**

Connect to the PC (for Wired Models) or connect to AC adaptor (for Wireless Models).

**(5) Casters(Parts of stand)**









After setting up the StarBoard, lock the casters. Lift up the tab to unlock a caster, and press down the tab to lock it.

**Locked****Unlocked****(6) Pen Holder**

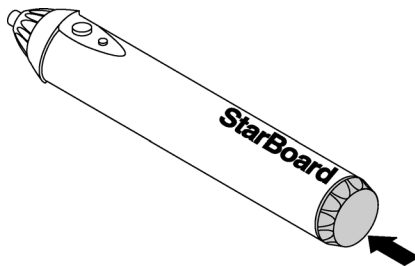


## 1.3.2 Function Area

Function panel includes the function button of StarBoard Software which used very often as shortcuts. Click the center of the function button and use it. Function button can be customized on Windows by StarBoard Software setting, but cannot be customized on Mac OS. Please refer to the online help for details.

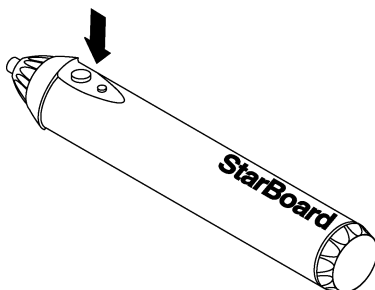
Symbol	Description	Symbol	Description
	Show/Hide the StarBoard Software toolbar.		Insert and show a blank page.
	Show previous page.		Show next page.
	Show/Hide Topic List.		Switch to PC Operation.
	Select Pen.		Select Highlighter.

## 1.3.3 Electronic Pen



## (1) Battery cover

When replacing the battery, open the lid and replace the battery.



## (2) Side buttons

Please see page 2-3.

## 1.4 Assembly and Setup

When setting up the StarBoard, keep the following in mind:

- Select a level and stable position.
- Do not set it up near equipment that might generate electromagnetic waves and radio frequencies (e.g. radio transmitter, television, copying machine, air conditioner).
- Avoid locations that are dusty, that are subject to extremely high or low temperature or humidity or that are exposed to direct sunlight.

### 1.4.1 Stand Setup Method

Reconfirm that all parts are present before assembling and setting up the stand.

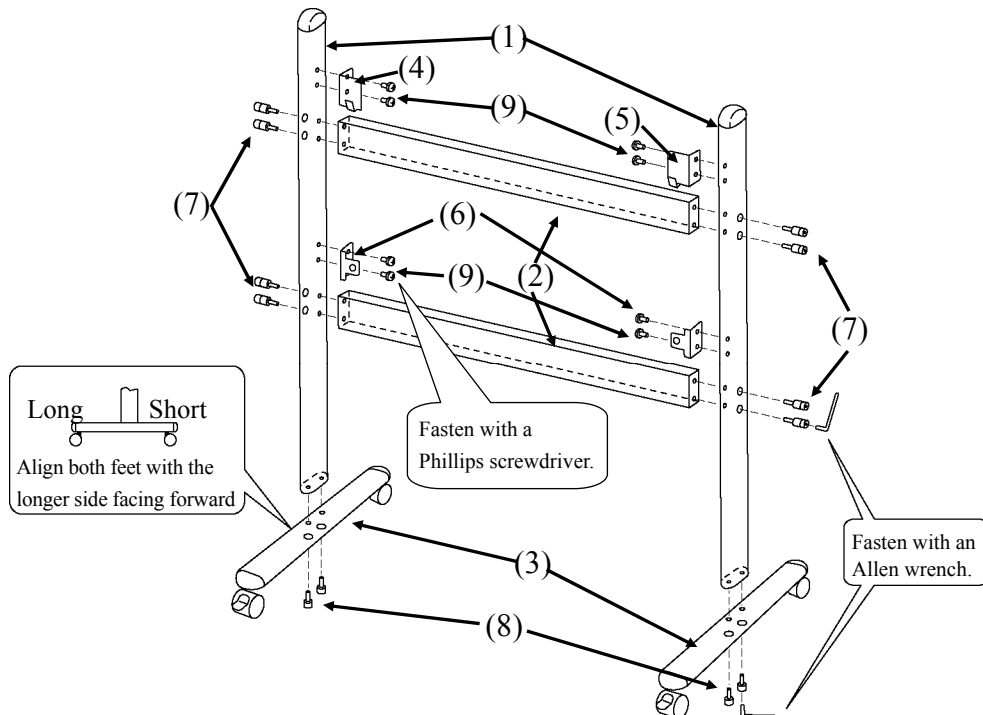
#### (1) Stand Assembly

### CAUTION

#### **Fasten the screws tightly.**

Otherwise, the stand might fall and cause injury or the impact of the falling board might cause damage.

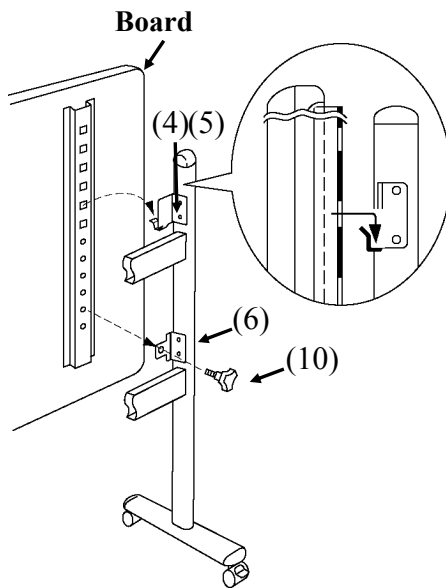
Assemble the stand according to the following diagram. Numbers in the diagram correspond to numbers in the parts list on page 1-3.



## (2) Board Installation

<b>⚠ CAUTION</b>
<b>This work should be performed by at least two people.</b> The board might fall and cause injury or its impact might cause damage.
<b>Fasten the screws tightly.</b> The board might fall and cause injury or its impact might cause damage.

Install the board on the stand assembled in step (1). Install the board according to the following procedure. Furthermore, this step should be performed by at least two people. Numbers in the diagram correspond to numbers in the parts list on page 1-3.

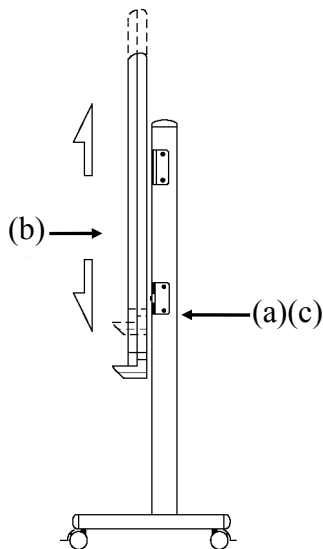


- Decide the level (out of six) at which the board will be installed, and use the square holes on the back of the board to hang it on the board receiving brackets.
- Verify that one of the board's square holes is attached securely to the board receiving bracket on each side.
- Tighten triangular knob screw to fasten the board to the board fixing bracket on each side.

## (3) Height Adjustment

<b>⚠ CAUTION</b>
<b>Fasten the screws tightly.</b> The board might fall and cause injury or its impact might cause damage.
<b>This work should be performed by at least two people.</b> The board might fall and cause injury or its impact might cause damage.

The StarBoard can be positioned at six height levels. Adjust the height according to the following procedure. Furthermore, this work should be done by at least two people.



(a) Remove the triangular knob screw at the bottom of each side.

(b) Raise the board and re-hang it by attaching the square holes for the desired height to the receiving brackets.

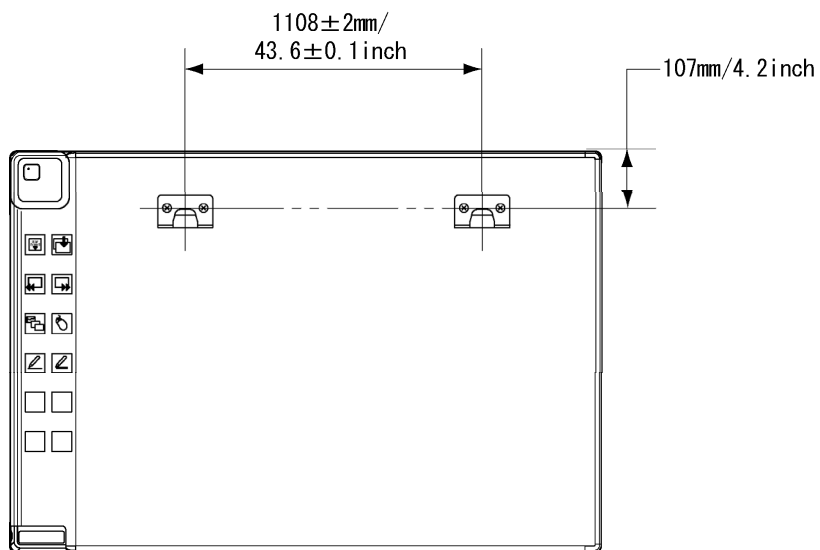
(c) Fasten the triangular knob screw at the bottom of each side.

## 1.4.2 Wall-Mounting Setup Method

- (1) Install the mounting brackets.

<b>⚠ CAUTION</b>
<b>Before installation, take the wall material into consideration.</b> If it is installed by using a method inappropriate for the wall material, the board might fall. Also, installation might be impossible, depending on the wall selected. For details, consult your dealer.
<b>Before installation, take the wall strength into consideration.</b> Before using the StarBoard, make sure that it has been fastened securely so that it will not fall. Also verify that the wall mounting bracket is strong enough to support a weight of approximately 88.2lb. /40 kg.

Determine the height at which the board will be installed, and install the brackets at the positions shown in the following diagram.



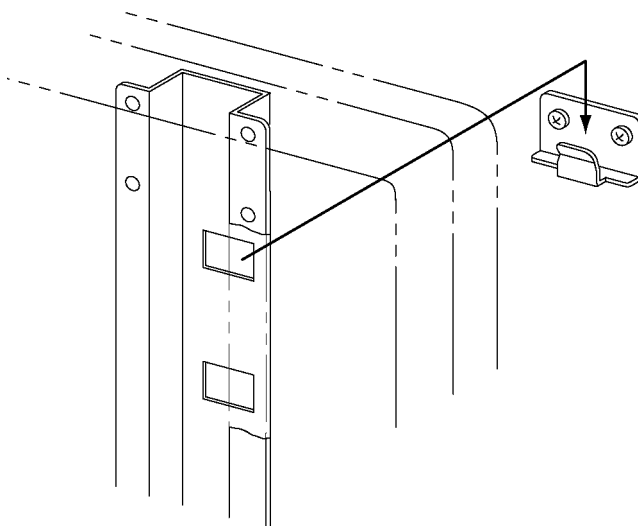
## (2) Board Installation

**⚠ CAUTION**

**This work should be performed by at least two people.**

The board might fall and cause injury or its impact might cause damage.

Connect each mounting bracket to the top square hole in the board receiving bracket located at the back of the board on both sides.

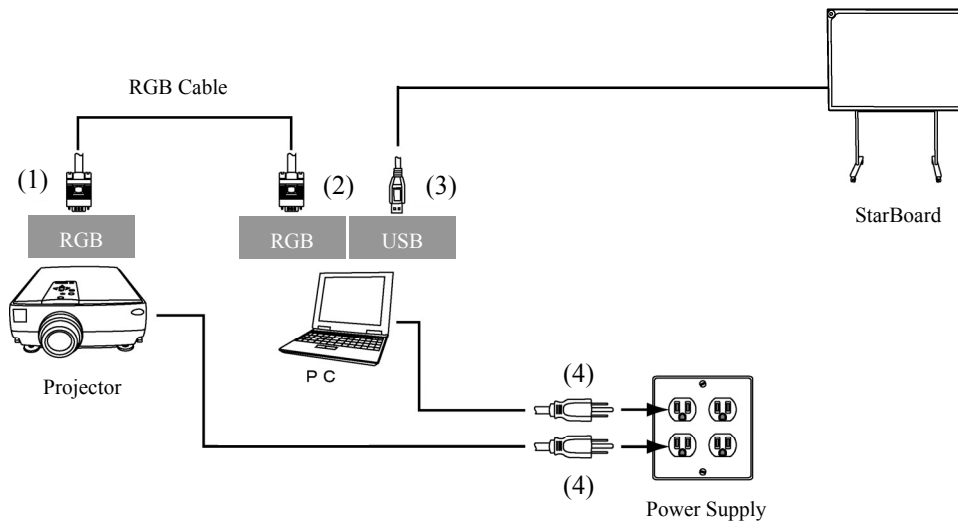
**NOTE**

- The equipment might malfunction if set up in an excessively bright location. If the ceiling lights are too bright, it will be necessary to adjust the brightness by turning off the lights, etc.
- Either avoid setting it up in a location exposed to direct sunlight or near a window, or use curtains, etc. to block the sunlight. Otherwise, the equipment might malfunction.
- If multiple systems are set up in the same room or adjacent to each other, they might malfunction. If necessary, contact the technical support in advance.

## 1.4.3 How to Connect When Using Projection Mode

## A. How to connect when using USB cable (i.e., Wired Mode)

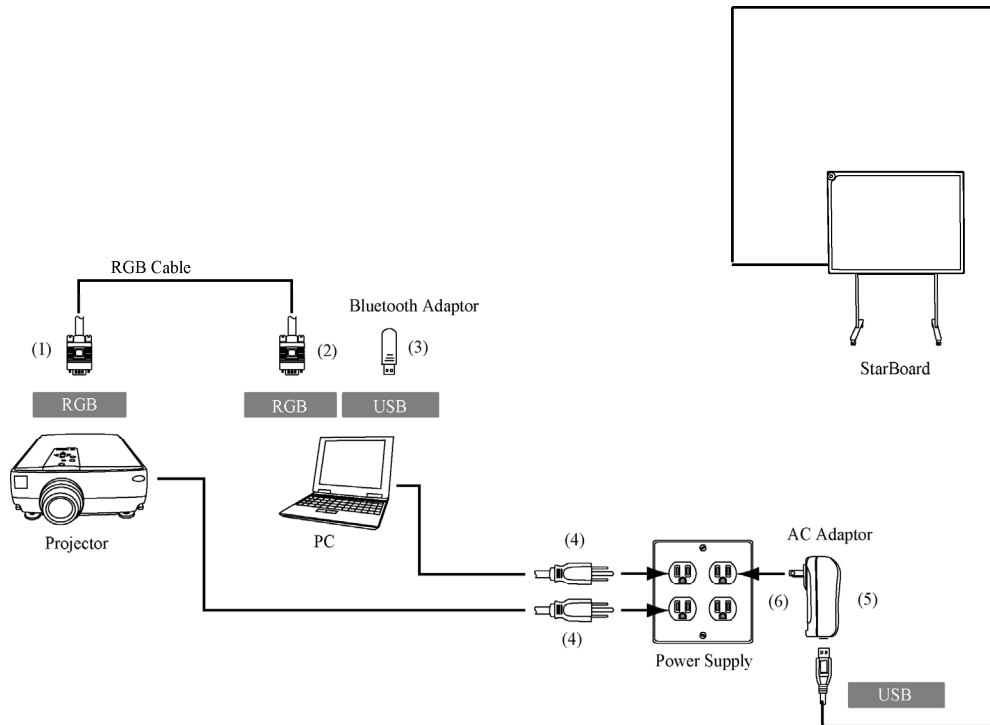
Connect the PC, projector, and StarBoard according to the following procedure.



- (1) Connect the RGB cable to the projector's RGB terminal, and fasten with the integral screws.
- (2) Connect the opposite side of the RGB cable connected in step (1) to the PC's RGB terminal, and fasten with the integral screws.
- (3) Connect the USB cable from StarBoard to the USB terminal of the PC.
- (4) Connect the power supplies of the PC and the projector to the mains.

**B. How to connect when using the USB wireless receiver (i.e., Wireless Mode)**

Connect the PC, projector, and StarBoard according to the following procedure (only if the wireless unit is purchased with the StarBoard).



- (1) Connect the RGB cable to the projector's RGB terminal, and fasten with a screw.
- (2) Connect the other end of the RGB cable connected in step (1) to the PC's RGB terminal, and fasten with a screw.
- (3) Connect the Bluetooth adaptor (option) to the PC's USB terminal.
- (4) Connect the power supplies of the PC and the projector to the power outlet.
- (5) Connect the USB terminal of StarBoard to AC adaptor.
- (6) Connect AC Adaptor to the power outlet.

**PC & StarBoard Installation**

Please remove any shielding objects which may block off the radio wave between the PC and StarBoard, and the distance between must be within 10m.



## 2. Usage

### 2.1 Basic Usage


In this chapter, the basic usage of the StarBoard will be explained.

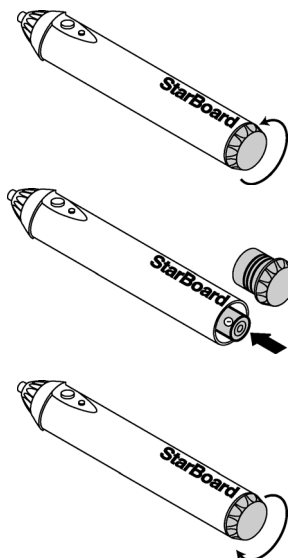
Read this section carefully to learn about the StarBoard functions.

#### 2.1.1 Preparation

Prepare to use the StarBoard.

- (1) Insert the battery into the electronic pen.

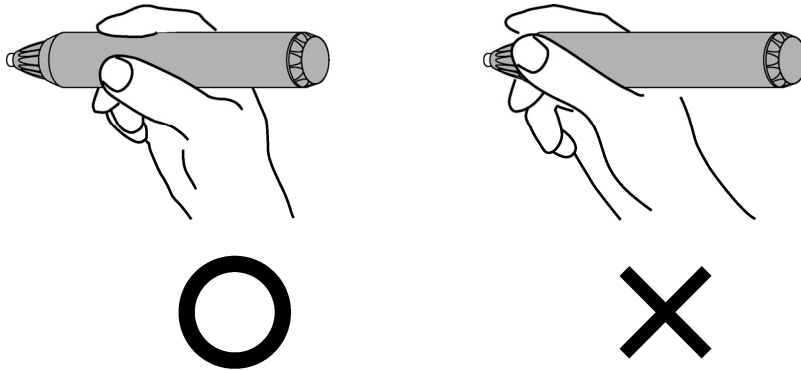
 <b>CAUTION</b>
<b>Be sure to install batteries correctly.</b> Do not install batteries with positive and negative terminals reversed, or use batteries other than the type specified. It will cause pen malfunctions and excess heat, or burns to the hand.
<b>Be sure to provide insulation during disposal.</b> Be sure to insulate the positive and negative terminals of the battery using cellophane tape, or similar material when disposing of batteries. Disposing of batteries without insulating them may lead to overheating, bursting, or ignition due to shorting, resulting in personal injury or fire. Furthermore, be sure to follow all local rules and regulations regarding proper battery disposal. If within the EU, be sure to follow Batteries Directive. [Batteries directive (2006/66/EC)]



- (1) Open the battery cover on the electronic pen by moving in the direction of the arrow.
- (2) As shown in the figure, insert the battery after verifying that the “+” side faces to the pen tip.
- (3) Replace the battery cover and slide it in the direction of the arrow until it closes completely.

## 2.1.2 How to Use Electronic Pen

- (1) When drawing with the electronic pen, apply force sufficient enough to cause the pen tip to sink completely into the electronic pen. When information from the pen is being transmitted normally, a slight buzzing sound is audible from the pen.
- (2) A miniature transmitter is embedded in the tip of the electronic pen. When drawing annotations or graphics while holding the electronic pen below the colour ring, the drawing data from the electronic pen sometimes is not transmitted correctly. If the annotations and graphics drawn on the whiteboard are not stored correctly to the PC, change your grip on the electronic pen and then verify that they are displayed correctly.

**Blocking of Infrared Beam**

In the mechanism of this device, the pen coordinates are detected after the digitiser reads the infrared beam emitted by the pen and the ultrasonic signals. So, if the electronic pen or the digitiser is blocked, normal input becomes impossible. Avoid blocking them during use. Also, when it is used with the optional wireless unit, the digitiser also functions as a wireless transmitter, so avoid blocking the digitiser front and the wireless receiver.

### 2.1.3 Basic operation of Electronic Pen

In the default settings of the electronic pen, the pen tip button is set to the left button of the mouse in Windows and the main button click in Mac. You can use the pen tip button to perform the following mouse operations while Windows or Mac is running.

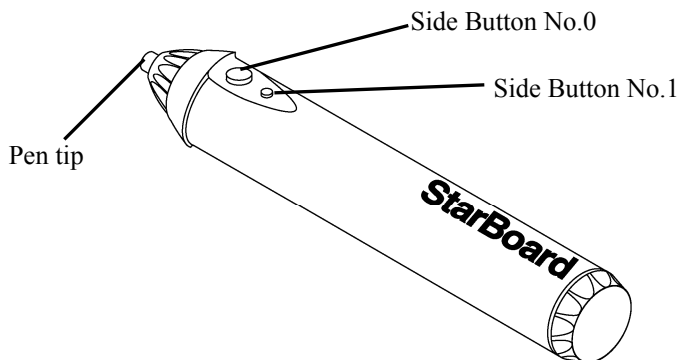
The following xxxx/xxxx description is for functions and operations in a Windows environment or Mac environment.

- Left click / Primary mouse button click  
Push the pen tip onto the StarBoard with sufficient force and then release the pen away from the board.
- DoubleClick / Primary mouse button Double click  
Perform the "Click" operation explained above twice in the same spot.
- Drag / Drag  
Push the pen tip onto the starboard with sufficient force, and without releasing it away from the board, move it from one point to another.

### 2.1.4 Electronic Pen Setting

The electronic pen has one pen tip button, and two side buttons. Mouse actions can be assigned to these three buttons. The default button settings are summarized in the following table.

Button Name	Function	
	Windows *	Mac
Pen tip	Left click of mouse	Primary mouse button click
Side Button No.0	Hovering	Hovering
Side Button No.1	Right click of mouse	Secondary Button click

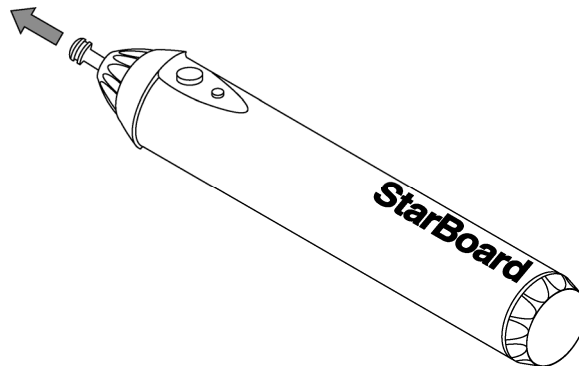


\* The assignment of the side button can be changed by selecting "MENU" on the StarBoard Software toolbar → "Settings" → "StarBoard" → "StarBoard Settings" → "Configure pen buttons" (This function can only be changed in Windows.)

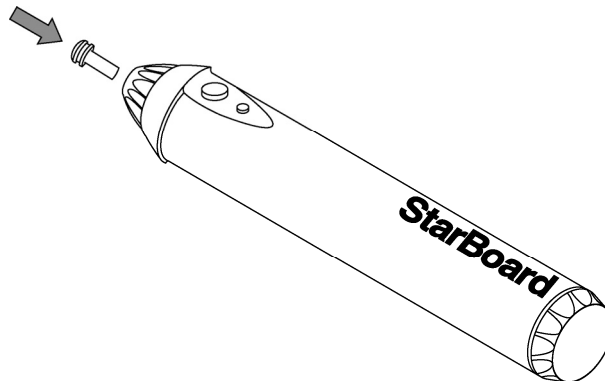
### 2.1.5 Replacing Electronic Pen Tip

When Electronic pen tip wears down and becomes too short, replace it as described below.

- (1) Remove electronic pen tip by finger, or a pair of pincers.



- (2) Insert a new pen tip into electronic pen.





## 2.2 How to Use StarBoard in Projection Mode

### 2.2.1 Wired Connection(Windows version)

- (1) Connect devices following the page 1-11.
- (2) Power up the projector.
- (3) Power up PC to start up Windows.
- (4) Adjust the position of the projector so that the Windows screen projected by the projector is within the pen input active area (see page 1-4).
- (5) Select "Start" → "All Programs" → "StarBoard Software," or double-click the StarBoard icon on the desktop.



If the "No connection" icon in below appears on the Tasktray, it means that the StarBoard is not connected. Make sure that the StarBoard and the PC are properly connected.

Connected	No Connection
	

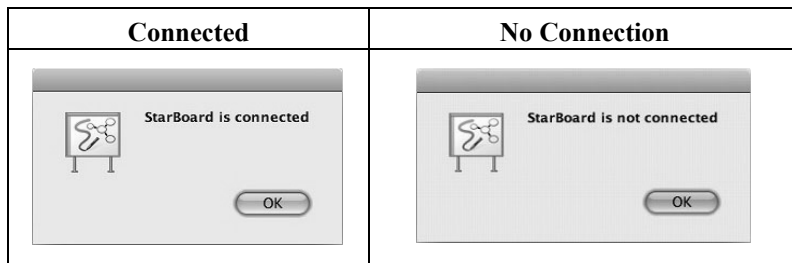
If the StarBoard is properly connected, the icon changes to "Connected" as above. If the icon does not change despite correcting the connection, there may be some other problem. For details, refer to "3. Appendix A.Troubleshooting" on page 3-1 of this User's Guide.

If the positions of the pen tip and cursor are out of alignment, select "MENU" on the StarBoard Software toolbar → "Settings" → "StarBoard" → "Calibrate" → "OK". and then perform position alignment.

## 2.2.2 Wired Connection(Mac version)

- (1) Connect devices following the page 1-11.
- (2) Power up the projector.
- (3) Power up Mac to start up Mac OS.
- (4) Adjust the position of the projector so that the Mac screen projected by the projector is within the pen input active area (see page 1-4).
- (5) Select "Go" → "Applications" → "StarBoard Software" to start StarBoard Software.
- (6) Select "MENU" on the StarBoard Software toolbar → "Settings" → "StarBoard" → "Check Connection," and then check the connection.

If the "StarBoard is not connected" message appears, StarBoard Software has not detected the StarBoard. Check whether the StarBoard and Mac are connected properly.



If they are connected properly, the "StarBoard is connected" message appears. If the indication does not change even though you have checked the connection, there is likely to be some problem.

If the positions of the pen tip and cursor are out of alignment, select "MENU" on the StarBoard Software toolbar → "Settings" → "StarBoard" → "Calibrate" → "OK". and then perform position alignment.

### 2.2.3 Wireless Connection(Windows version)

- (1) Connect devices following the page 1-12.
- (2) Power up the projector.
- (3) Power up PC to start up Windows.
- (4) Adjust the position of the projector so that the Windows screen projected by the projector is within the pen input active area (see page 1-4).

For the driver installation, please refer to “USB Bluetooth Adapter Installation Manual” provided with the Bluetooth Dongle.

### 2.2.4 Wireless Connection(Mac version)

- (1) Connect devices following the page 1-12.
- (2) Power up the projector.
- (3) Power up PC to start up Mac.
- (4) Adjust the position of the projector so that the Mac screen projected by the projector is within the pen input active area (see page 1-4).

In case of using Bluetooth adaptor other than Mac OS built-in, installation of driver software for its Bluetooth adaptor may results on Mac OS. Refer to the install manual of Bluetooth adaptor to proper installation.

### 3. Appendix

#### A. Troubleshooting

Before assuming the product is broken, be sure to check adjustments, proper handling procedures, the possibility of faulty cable connections, etc.

#### Recognition Related Problems

<b>Problem</b>	<b>What to check</b>	<b>What to do</b>
StarBoard is not recognized.	Is the USB cable connected to the PC?	Connect the USB cable to the PC.
	Is the green LED on the digitizer lit?	Check the USB cable.
	Was system startup performed in the correct order?	Perform system startup in the correct order. (For details on the system startup procedure, see page 2-5 in this User's Guide)
	The StarBoard Software file may be corrupt, or the software installation may not have been completed correctly.	Uninstall the StarBoard Software and then re-install it. (For details on installing StarBoard Software, see the StarBoard Software x.x Installation Guide.)
	Other than the above	Contact customer support.
StarBoard is not recognized (When connected wirelessly)	Is the USB cable connected to the AC adapter?	Connect the USB cable to the AC adapter.
	Is the Bluetooth receiver attached to the PC?	Connect the Bluetooth receiver (Bluetooth adapter etc) to the PC.
	Is the green LED on the digitizer lit?	Check the USB cable and AC adapter.
	Are the Bluetooth adapter and StarBoard positioned too far apart?	With the Bluetooth adaptor at the front of the StarBoard, move to within 10 meters of the digitizer.
	Is the Bluetooth adaptor operating correctly?	Check the setting status in the Bluetooth adapter installation manual.
	Is there a wireless device nearby?	Install further away from the wireless device.
	Is the StarBoard installed in a location that has an unobstructed view of the Bluetooth adapter?	In some cases the communication range is shortened due to the structure of the building. Therefore, please change the installation location.
	Is a different wireless LAN or Bluetooth device that uses the same frequency band (2.4GHz) being used nearby?	Turn off the power to any unused devices.



Problem	What to check	What to do
	Was system startup performed in the correct order?	Startup the system in the correct order. (For details on the system startup procedure, see page 2-5 in this User's Guide)
	The StarBoard Software file may be corrupt, or the software installation may not have been completed correctly.	Uninstall the StarBoard Software and then re-install it. (For details on installing StarBoard Software, see the StarBoard Software x.x Installation Guide.)
	Other than the above	Contact customer support.

**Electronic Pen Related Problems**

Problem	What to check	What to do
The electronic pen does not work.	This may be due to faulty contact of the electronic pen batteries.	Remove the batteries from the electronic pen, and re-install them.
	Are the batteries used up?	Replace the batteries. (For details on battery replacement, see page 2-1 of this User's Guide)
	The StarBoard Software file may be corrupt, or the software installation may not have been completed correctly.	Uninstall the StarBoard Software and then re-install it. (For details on installing StarBoard Software, see the StarBoard Software x.x Installation Guide.)
	Is there a nearby light source or sound source with a wavelength close to that of the electronic pen?	Change the location in which the StarBoard is installed.
	Other than the above	Restart Windows/Mac OS or StarBoard Software.  Contact customer support.
The Electronic pen operation is unstable or stops.	Is another electronic device that uses a large amount of power connected to the same power source as the StarBoard?	If another electronic device that uses a large amount of power is connected to the same power source, switch to a different power source.
	The batteries in the electronic pen may be run down.	Replace the batteries. (For details on battery replacement, see page 2-1 of this User's Guide)

Problem	What to check	What to do
	The StarBoard Software file may be corrupt, or the software installation may not have been completed correctly.	Uninstall the StarBoard Software and then re-install it. (For details on installing StarBoard Software, see the StarBoard Software x.x Installation Guide.)
	Other than the above	Switch the StarBoard power off and then on again.
		Restart Windows and the StarBoard Software.
		Check if the same problem arises when using another electronic pen. If operations are normal when using another electronic pen, the original pen is the problem.
		Contact customer support.
The tip of the Electronic pen and pen cursor are not aligned.	Has the pen alignment been performed correctly?	Perform the pen alignment correctly. (For details, see page x.x in the StarBoard Software x.x Installation Guide)
	Other than the above	Contact customer support.
Cannot align the pen correctly.	Has the StarBoard been installed in the proper orientation?	Adjust the position of the StarBoard and projector.
	Is the PC screen being projected inside the StarBoard's input area?	Make sure the PC screen projection is contained within the StarBoard's input area. (For details on the input area, see page 1-4 of this User's Guide)
	The StarBoard Software file may be corrupt, or the software installation may not have been completed correctly.	Uninstall the StarBoard Software and then re-install it. (For details on installing StarBoard Software, see the StarBoard Software x.x Installation Guide.)
	Other than the above	Contact customer support.

## B. System Specifications

Item		Specification			
Product name		FX-77G (Wired)	FX-77G (Wireless)	FX-63G (Wired)	FX-63G (Wireless)
Model No		AH00133	AH00134	AH00135	AH00136
Input methods		Infrared and Ultrasonic methods *1			
Interface to computer	Wired	USB 2.0			
	Wireless	Bluetooth 1.1			
Effective screen size (mm)		77 inches, 1,573 (W) × 1,180 (H)		63 inches, 1,280 (W) × 960 (H)	
StarBoard dimensions (mm)		1,793 (W) × 1,220 (H) × 77.5 (D)		1,500 (W) × 1,000 (H) × 77.5 (D)	
Overall dimensions (including stand) (mm)		1,793 (W) × 1,700 – 2,050 (H) × 620 (D)		1,500 (W) × 1,700 – 2,050 (H) × 620 (D)	
Sampling rate		Approximately 66 points/s			
Accuracy		±1.5 mm			
Current/input voltage		100mA (5V)	200mA (5V)	100mA (5V)	200mA (5V)
AC adaptor input voltage/ power consumption		—	100–240V/0.2 A	—	100–240V/0.2 A
AC adaptor output voltage/ power consumption		—	5.0 V/0.5 A	—	5.0 V/0.5 A
Weight of main unit/ weight including stand		17 kg/34 kg		12 kg/29 kg	
Bundled software		StarBoard Software, 1 set			
Environmental conditions	Ambient temperature	16-35°C *2			
	Humidity	20-80%			
Battery life		Continuous operating time Approximately 90 hours*3			

\*1 This product uses infrared and ultrasonic as digitiser technology.

Please avoid using this product near the devices/areas such as:

- place to be exposed to direct sunlight
- near walls where reflects ultrasonic/infrared
- devices which generates ultrasonic ex. motion sensor
- devices which generates infrared ex. PDP, passive sensor

Also, this product may be affected by fluorescent lights.

\*2 After positioning, the coordinate position may deviate due to changes in the ambient temperature.

\*3 The battery life varies according to the temperature and the usage environment.

Item		Specification	
Product name		FX-82WG (Wired)	FX-82WG (Wireless)
Model No		AH00137	AH00138
Input methods		Infrared and Ultrasonic methods *1	
Interface to computer	Wired	USB 2.0	
	Wireless	Bluetooth 1.1	
Effective screen size (mm)		82 inches Wide, 1,831 (W) × 1,030 (H)	
StarBoard dimensions (mm)		2,051 (W) × 1,070 (H) × 77.5 (D)	
Overall dimensions (including stand) (mm)		2,051 (W) × 1,700 – 2,050 (H) × 620 (D)	
Sampling rate		Approximately 66 points/s	
Accuracy		±1.5 mm	
Current/input voltage		100mA (5V)	200mA (5V)
AC adaptor input voltage/ power consumption		—	100–240V/0.2 A
AC adaptor output voltage/ power consumption		—	5.0 V/0.5 A
Weight of main unit/ weight including stand		18 kg/35 kg	
Bundled software		StarBoard Software, 1 set	
Environmental conditions	Ambient temperature	16-35°C *2	
	Humidity	20-80%	
Battery life		Continuous operating time Approximately 90 hours *3	

\*1 This product uses infrared and ultrasonic as digitiser technology.

Please avoid using this product near the devices/areas such as:

- place to be exposed to direct sunlight
- near walls where reflects ultrasonic/infrared
- devices which generates ultrasonic ex. motion sensor
- devices which generates infrared ex. PDP, passive sensor

Also, this product may be affected by fluorescent lights.

\*2 After positioning, the coordinate position may deviate due to changes in the ambient temperature.

\*3 The battery life varies according to the temperature and the usage environment.

### C. Maintenance of your StarBoard

Clean the StarBoard periodically so that you may use it for a long time.

(1) Cleaning the StarBoard

To clean the StarBoard, use a soft cloth dampened with whiteboard cleaner or a diluted neutral cleansing agent that does not contain a polishing compound.

Never use solvents such as thinner.

Note that rubbing or striking the StarBoard surface with a fingernail or other hard object may result in scratching.

(2) Cleaning the electronic pen

To clean the electronic pen, use a neutral cleansing agent. Do not apply the neutral cleansing agent directly, but rather dampen a soft wet cloth with a mixture of water and the cleaner, and wring it out thoroughly before wiping.

Never use solvents such as thinner.

### D. Replaceable Parts

(1) AA size alkaline batteries

(2) Spare pen tip for electronic pen

For details on obtaining the replaceable parts, contact your dealer or the customer support center.

**E. Provisions of Product Warranty**

1. During the free warranty service period, if a malfunction occurs during normal use, the malfunction will be corrected without charge, according to the provisions of the warranty. Furthermore, if the customer registration card accompanying the warranty is not returned to our company, the customer information will not be registered; so free repairs might be unavailable. After receiving this product, please immediately fill out and return this customer registration card.
2. The warranty coverage is as listed in the following table:

<b>Product Name</b>	<b>Part Name</b>	<b>Warranty Coverage</b>
StarBoard	Digitiser (FX-77G/FX-63G/FX-82WG)	+
	Power supply	+
Electronic Pen	Electronic Pen	+
	Tip of Electronic pen	–
Stand		–
Wall-mounting bracket		–
AA alkaline battery		–
Other parts and optional equipment		–

Legend: + → Covered by warranty (excluding wear and physical damage)

– → Not covered by warranty

3. Please refer to the warranty sheet for this product's warranty service period.
4. Even during the warranty period, there will be a repair charge in the following cases:
  - (1) If the registration card accompanying the warranty is not returned to our company.
  - (2) If the warranty is not presented.
  - (3) If specified fields on the registration card accompanying the warranty are not completed, or if the wording has been changed without authorisation.
  - (4) The warranty applies only to the original purchasers. (It does not apply to a third party to whom the customer resold this product.)
  - (5) In the event of a malfunction or damage resulting from the customer's improper handling (e.g., a fall, impact, etc., caused by the customer during transportation or movement).
  - (6) In the event of problems resulting from handling contrary to the handling and precautions mentioned in this user's guide.
  - (7) In the event of failure or damage resulting from abnormal voltages, pollution or other natural disasters (e.g., fire, earthquake, and lightning).
  - (8) In the event of a malfunction in this product caused by the connection to this product of equipment other than the equipment specified by our company.

- (9) In the event that there is no abnormality in this product, but a defect in a part other than this product was detected or remedied.
  - (10) In the event of ordinary wear and tear, wear, deterioration, etc., of consumables, even during normal use.
5. If this product malfunctions, review the contents of this user's guide. If the problems remain irreparable, contact the dealer. The dealer will determine whether or not the product must be repaired, so please contact them. If the customer sends the product to our company without RMA (Return Merchandise Authorisation) number, it might not be covered by warranty.
  6. As a rule, the customer is responsible for shipping charges required to send all or part of the product for repair, etc. Our company will assume responsibility for the return shipping to the customer.
  7. This warranty does not cover labour fees for repair-associated equipment assembly or disassembly.
  8. Incidental damage caused by the failure of this product (e.g., loss of profit that should have resulted from the use of this product) is outside the scope of this warranty.
  9. The aforementioned provisions define this warranty, and they supersede those of all express or implied warranties that include legal defect liability.
  10. This warranty is limited to use of this product within the country where the user bought this product.