

DATA PROJECTOR

XJ-A130/XJ-A135*

XJ-A140/XJ-A145*

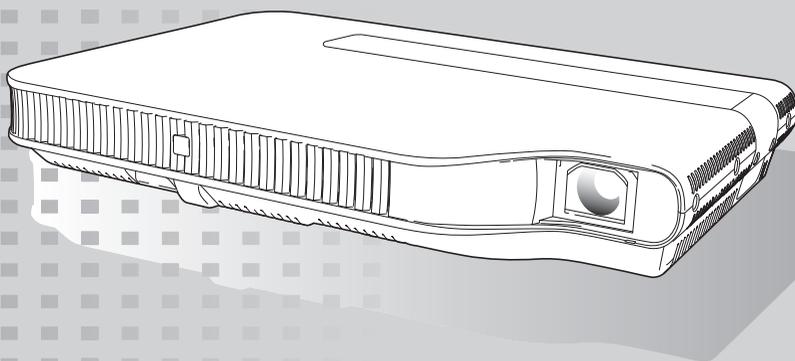
XJ-A230/XJ-A235*

XJ-A240/XJ-A245*

* USB Port Models

User's Guide

- Be sure to read the precautions in the separate User's Guide (Basic Operations). For details about setting up the projector, see the User's Guide (Basic Operations).
- Be sure to keep all user documentation handy for future reference.



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Contents

About this manual...	4
Projector Overview	5
Projector Features and Main Functions	5
Remote Controller and Projector Keys	7
Operation During Projection	9
Image Operations During Projection	9
Adjusting Image Brightness	9
Selecting the Color Mode	10
Zooming an Image	10
Momentarily Cutting Off the Input Source Image	11
Freezing an Image	11
Displaying a Pointer in the Projected Image	12
Changing the aspect ratio of the projected image	13
Adjusting the Volume Level	14
To adjust the volume level	14
To mute the audio	14
Eco Mode (Power Saving, Low Noise)	15
Changing the Eco Mode Setting	15
Using the [FUNC] Key	16
Configuring Advanced Projector Settings	17
Basic Setup Menu Operations	17
Displaying the Setup Menu	17
Configuring Setup Menu Settings	17
Basic Setup Menu Example	18
Direct Power On	20
Password Protecting the Projector	21
Inputting a Password	21
Using the Password Feature	21
Entering the Password when Turning On the Projector	23
Restoring Projector Settings to Their Initial Factory Defaults	24

Setup Menu Contents	26
Image Adjustment 1 Main Menu	26
Image Adjustment 2 Main Menu	28
Volume Adjustment Main Menu	28
Screen Settings Main Menu	29
Input Settings Main Menu	31
Option Settings 1 Main Menu	32
Option Settings 2 Main Menu	33
USB Settings Main Menu (USB Port Models Only)	34
Wireless Main Menu (USB Port Models Only)	34
Operational Info Main Menu	35
Restore All Defaults Main Menu.....	35
Cleaning the Projector.....	36
Cleaning the Projector Exterior	36
Cleaning the Lens.....	36
Cleaning Intake and Exhaust Vents.....	36
Error Indicators and Warning Messages	37
Appendix	40
Connecting to a Component Video Output Device.....	40
Connecting the HDMI Output of a Video Device or Computer to the Projector.....	41
Remote Controller Signal Range.....	42
Projection Distance and Screen Size	43
Aspect Ratio Setting and Projection Image	44
Supported Signals.....	48

About this manual...

All of the operations in this manual are explained using the remote controller that comes with the projector.

Projector Overview

This section describes the features of the projector, and explains the functions of the projector and remote controller keys.

Projector Features and Main Functions

XJ-A130/XJ-A135/XJ-A140/XJ-A145/XJ-A230/XJ-A235/XJ-A240/XJ-A245

- A laser and LED hybrid light source provides high brightness of 2,000 to 2,500 lumens along with low power consumption and low heat generation.
- **Slim and compact:**
A4 file size and approximately 43mm slim. Compact enough to install or use just about anywhere.
- **HDMI video/audio input:**
HDMI (High Definition Multimedia Interface) input support enables direct connectivity with today's HDMI enabled notebook PCs, high-definition video devices (BD, HD DVD, DVD players, etc.), games, and other image projection and audio output devices.
Connection requires a commercially available HDMI cable.
- **Wide projection range:**
A wide angle 2X zoom allows projection even when projector-to-screen distance is severely limited. When using a projection size of 60 inches, projection can be performed from a distance of 1.4 meters (XJ-A230/XJ-A235/XJ-A240/XJ-A245) or 1.7 meters (XJ-A130/XJ-A135/XJ-A140/XJ-A145).
- **A selection of possible input sources:**
Computer RGB, composite video, component video (Y·Cb·Cr/Y·Pb·Pr), and HDMI video/audio are all supported as input sources.
- **Pointer:**
The remote controller can be used to select one of a variety of different pointers for use during projection.
- **Direct Power On:**
The projector can be configured to turn on automatically and start projecting as soon as it is plugged into a power outlet.

XJ-A230/XJ-A235/XJ-A240/XJ-A245

- **WXGA Resolution:**
The XJ-A230/XJ-A235/XJ-A240/XJ-A245 models support WXGA (1280 × 800) resolution for optimal viewing of content formatted for today's widescreen displays. This makes it perfect for projecting images from widescreen notebook PCs and HD video input sources.

XJ-A135/XJ-A145/XJ-A235/XJ-A245

- **Projection of Data from USB Memory or a Memory Card without a Computer:**

USB memory or a memory card (using a commercially available USB card reader) can be connected directly to the projector's USB port. The projector comes with special software for converting PowerPoint presentation data to a format that can be stored to USB memory or a memory card and projected without using a computer. Images and movies also can be projected directly from USB memory or a memory card.

- **Multi Projection Camera (YC-400, YC-430) Connection:**

A CASIO Multi Projection Camera can be connected directly to the projector's USB port for fine resolution projection of documents and other images. Document camera capabilities allow projection of data without going through a computer.

- **Graphic Scientific Function Calculator Connection:**

Certain CASIO graphic scientific calculator models can be connected directly to the projector's USB port for projection of the calculator screen contents.

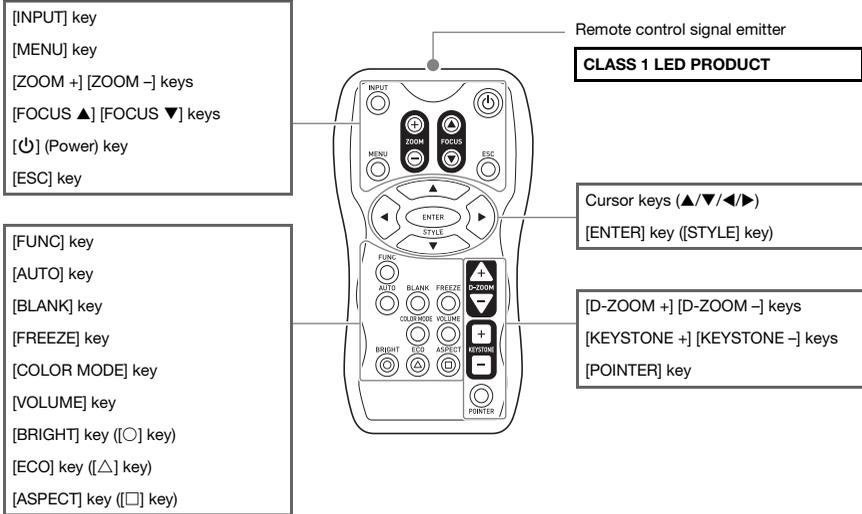
- **Projection of Computer Screen Contents via Wireless LAN:**

The projector comes with a wireless LAN adapter. After a wireless LAN connection is established, the contents of the computer screen can be sent to the projector for projection.

Remote Controller and Projector Keys

Operations in this manual are presented based on the remote controller that comes with the projector. Major operation keys are also provided on the projector unit, so the most of the same procedures can also be performed directly on the projector.

Remote Controller Keys



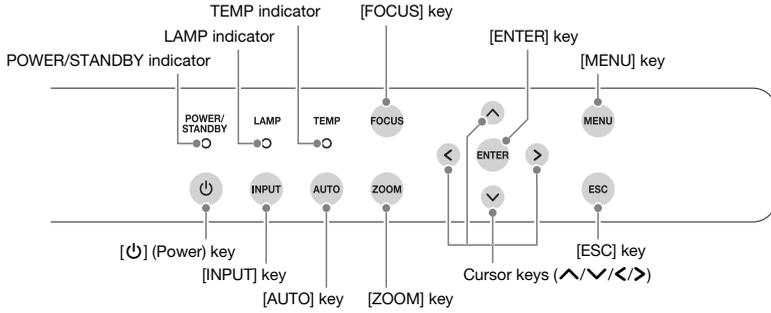
The remote controller does not come with batteries loaded. You need to load the two supplied batteries before use.



Important!

To avoid running down the batteries, store the remote control unit so its keys are not pressed inadvertently.

Projector Keys and Indicators



Note

- Functions of projector keys and remote controller keys that have the same name are identical.
- The projector [ZOOM] key corresponds to the remote controller [ZOOM +] and [ZOOM -] keys, while the projector [FOCUS] key corresponds to the remote controller [FOCUS ▲] and [FOCUS ▼] keys. For information about using these keys, see “Adjusting the Projected Image” in the separate “User’s Guide (Basic Operations)”.

Operation During Projection

This section explains the various types of operations you can perform while the projector is projecting an image.

Image Operations During Projection

You can perform the following operations while projecting an image.

- Image brightness adjustment
- Color mode selection
- Image zooming
- Momentary cut off of the input source image and projection of a black or blue screen, or a logo
- Image freeze
- Pointer display in the projected image
- Aspect ratio switching

Adjusting Image Brightness



Note

(for USB port model users)

Use the setup menu (page 17) to adjust image brightness when the input source is an external device connected to the USB port or via the wireless adapter.

To adjust image brightness

1. Press the [BRIGHT] key.

- This displays the brightness adjustment window.



2. Use the [◀] and [▶] keys to adjust image brightness.

3. To hide the window, press the [ESC] key.

Selecting the Color Mode

You can select from among four different color mode settings to optimize the projected image in accordance with image contents and projection conditions.



Important!

The color mode cannot be selected while “Off” is selected for the Eco Mode (page 15).

To change the color mode

- 1. Press the [COLOR MODE] key.**
 - This displays the color mode selection window. The currently selected color mode is the one whose button is selected (filled in).
- 2. Use the [▼] and [▲] keys to move the highlighting to the color mode you want to select, and then press the [ENTER] key.**
 - This will select the button next to the highlighted color mode name.
 - For details on what each color mode does, see “Color Mode” under “Image Adjustment 1 Main Menu” on page 27.
- 3. To hide the window, press the [ESC] key.**

Zooming an Image

- 1. Press the [D-ZOOM +] key.**
 - This will enlarge the center of the projected image one step.
- 2. To zoom in on the center of the projected image more, press the [D-ZOOM +] key again. To zoom out, press the [D-ZOOM -] key.**
 - Each press of [D-ZOOM +] zooms in (increases the zoom factor), while [D-ZOOM -] zooms out. Holding down either key continuously scrolls the zoom factor.
- 3. While an image is zoomed, use the [▲], [▼], [◀], and [▶] keys to scroll the view to other parts of the image.**
- 4. To exit the zoom operation, press the [ESC] key.**

Momentarily Cutting Off the Input Source Image

- 1. Press the [BLANK] key.**
 - This temporarily cuts off the image from the input source and projects a black screen in its place.
- 2. To resume projection of the image from the input source, press the [BLANK] key (or [ESC] key).**



Note

You can specify projection of a black screen or blue screen, or a logo. For details, see “Blank Screen” under “Screen Settings Main Menu” on page 30.

Freezing an Image

Pressing the [FREEZE] key freezes the projected image.

To freeze the projected image

- 1. While an image is being projected from an input source, press the [FREEZE] key.**
 - This will capture the image that is on the screen at the moment you press [FREEZE] and stores it in projector memory. That image remains projected on the screen.
- 2. To restore projection of the image from an input source, press the [ESC] key.**

Displaying a Pointer in the Projected Image

You can select from among different pointer styles, including various arrow styles, for display in the projected image. Pointers can be used during a presentation to indicate or highlight a specific part of the image.



Note

Depending on the pointer style you are using, the pointer may not display properly when you are using keystone correction. If this happens, use the [KEYSTONE +] and [KEYSTONE -] keys to change the keystone correction value to zero.

To display a pointer in the image

1. Press the [POINTER] key.

- This will cause a pointer to appear in the image.
- You also can use the setup menu to specify the pointer type that appears first when you press the [POINTER] key. For details, see “Pointer” under “Option Settings 2 Main Menu” on page 33.

2. Use the cursor keys to move the pointer to the location you want.

- Holding down a cursor key moves the cursor at high speed.

3. To modify the pointer as described below, press the [STYLE] key.

For this pointer type:	Pressing [STYLE] will change it like this:
	→ → →
	→ → → →
	→ → →
	→ → →
	Toggle between flashing and not flashing

To select the pointer type

1. Press the [POINTER] key to display the pointer.

2. Keep pressing the [POINTER] key until the pointer you want is displayed.

- Each press of the [POINTER] key cycles through the available pointer types.

To clear the pointer from the image

Press the [ESC] key.

Changing the aspect ratio of the projected image

Press the [ASPECT] key to cycle through the aspect ratio settings for the projected image.

Available settings depend on your projector model as shown below. For details about the meaning of each setting, see the “Aspect Ratio” setting (page 29) on the “Screen Settings Main Menu”.

XJ-A230/XJ-A235/XJ-A240/XJ-A245

Pressing the [ASPECT] key will cycle through settings in accordance with the current input source as shown below.

Input Source	Pressing [ASPECT] will cycle through these settings:
VIDEO, Component, HDMI (DTV)	Normal → 16:9 → Letter Box
RGB, HDMI (PC)	Normal → Full → True

XJ-A130/XJ-A135/XJ-A140/XJ-A145

Pressing the [ASPECT] key will toggle between settings in accordance with the current input source as shown below.

Input Source	Pressing [ASPECT] will toggle between these settings:
VIDEO, Component, HDMI (DTV)	Normal ↔ 16:9
RGB, HDMI (PC)	Normal ↔ Full



Note

- When the input source is a component or an HDMI (DTV) signal with an aspect ratio of 16:9, the aspect ratio is fixed at 16:9. In this case, pressing the [ASPECT] key will not change the aspect ratio setting.
- For details about how the aspect ratio setting affects the projected image, see “Aspect Ratio Setting and Projection Image” (page 44).
- You also can change the aspect ratio setting using the setup menu. For details, see “Aspect Ratio” under “Screen Settings Main Menu” on page 29.



Important!

Note that enlarging or reducing the size of an image using the [ASPECT] key for commercial purposes or public presentation may infringe on the legally protected copyright of the copyright holder of the original material.

Adjusting the Volume Level

You can use the remote controller keys to adjust the volume level of the audio that is output from the projector's speaker.

To adjust the volume level

1. Press the [VOLUME] key.

- This causes the [Volume] screen to appear on the projected image.



2. Press the [▶] key to increase the volume, or the [◀] key to lower the volume.

3. After the setting is the way you want, press the [ESC] key.

- This causes the [Volume] screen to disappear.



Note

You also can use the setup menu to adjust the volume level. For details, see “Volume Adjustment Main Menu” on page 28.

To mute the audio

1. Press the [VOLUME] key.

2. Press the [ENTER] key.

- This stops output from the speaker.

3. To restore the audio, press the [VOLUME] key again.

Eco Mode (Power Saving, Low Noise)

The following three Eco Mode settings are available to specify whether priority should be given to low-power, low-noise operation or lamp brightness.

On (Level2): Gives maximum priority to low-power, low-noise operation.

On (Level1): Provides low-power, low-noise operation while maintaining lamp brightness to some level.

Off : Gives maximum priority to lamp brightness.

Changing the Eco Mode Setting

1. Press the [ECO] key.

- This displays the Eco Mode selection window. The currently selected Eco Mode is the one whose button is selected (filled in).

2. Use the [▼] and [▲] keys to move the highlighting to the Eco Mode you want to select, and then press the [ENTER] key.

- This will select the button next to the highlighted Eco Mode name.

3. To hide the window, press the [ESC] key.



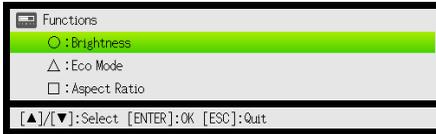
Note

(for USB port model users)

Use the setup menu (page 17) to select the Eco Mode when the input source is an external device connected to the USB port or via the wireless adapter.

Using the [FUNC] Key

Pressing the [FUNC] key displays the menu shown below.



You can use this menu to perform the operations described below.

- **Adjust image brightness**

Highlight “Brightness” and then press the [ENTER] key.

→ This performs the same operation as pressing the [BRIGHT] key (○ key) described on page 9.

- **Turn the Eco Mode on or off**

Highlight “Eco Mode” and then press the [ENTER] key.

→ This performs the same operation as pressing the [ECO] key (△ key) described on page 15.

- **Select the aspect ratio of the projected image**

Highlight “Aspect Ratio” and then press the [ENTER] key.

→ This performs the same operation as pressing the [ASPECT] key (□ key) described on page 13.



Note

(for USB port model users)

When the input source is an external device connected to the USB port or via the wireless adapter, use the [FUNC], [○], [△], and [□] keys to control the connected device. For details, see the “USB Function Guide” and “Wireless Function Guide” on the bundled CD-ROM.

Configuring Advanced Projector Settings

Your projector has a setup menu that you can use to configure advanced settings.

Basic Setup Menu Operations

Displaying the Setup Menu

Pressing the [MENU] key displays the menu shown below in the center of the projection screen.

Main menu
Pressing the [MENU] key displays the main menu. The currently selected menu item is the one that is highlighted.

Sub-menu
The sub-menu shows each individual setting under each main menu item, and its current setting.

Guidance text
Guidance text provides a brief description of the main key operations available for the operation you are currently performing.

QTY	PRICE
Q01	3,000
Q02	5,000
Q04	8,000
Q03	6,500
Q02	5,000
Q03	16,000
Q04	15,000

To exit the setup menu

Press the [MENU] key.

Configuring Setup Menu Settings

1. Press the [MENU] key to display the setup menu.
2. Use the [▼] and [▲] keys to select the main menu item you want by highlighting it.
3. Press the [ENTER] key.
4. Use the [▼] and [▲] keys to select the sub-menu item you want by highlighting it.
5. Perform the required operation on the selected sub-menu item screen.
 - The guidance text explains the operations you need to perform to configure each setting.
6. To return to the main menu from the sub-menu, press the [ESC] key.
7. To exit the setup menu, press the [MENU] key.

Basic Setup Menu Example

The procedure below shows how to configure the following three settings:

- Image Adjustment 1 → Contrast
- Image Adjustment 1 → Color Mode
- Input Settings → Signal Name Indicator

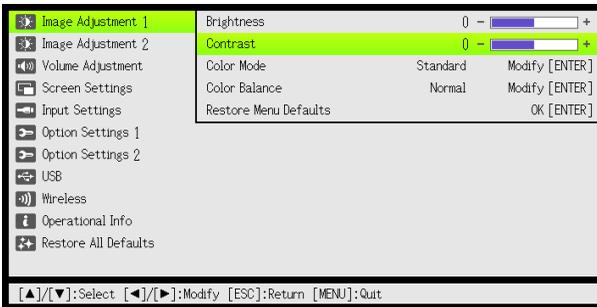


Note

- Certain settings on the setup menu cannot be changed while there is no input signal to the projector. Because of this, you should configure setup menu settings after selecting an input source and starting projection.
- This example covers basic steps only. For more detailed information, see “Setup Menu Contents” on page 26.

To configure the “Image Adjustment 1 → Contrast” setting

1. Press the [MENU] key to display the setup menu.
2. “Image Adjustment 1” is initially selected on the main menu, so simply press the [ENTER] key.
3. Use the [▼] key to select “Contrast”.



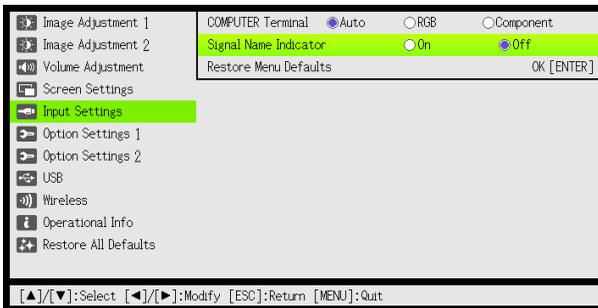
4. Use the [◀] (lighter) and [▶] (darker) keys to adjust contrast.

To configure the “Image Adjustment 1 → Color Mode” setting

5. Use the [▼] key to select “Color Mode”.
6. Press the [ENTER] key.
 - This displays the color mode menu.
7. Use the [▼] and [▲] keys to select the color mode you want, and then press the [ENTER] key.
8. After selecting the color mode you want, press the [ESC] key.

To configure the “Input Settings → Signal Name Indicator” setting

9. Press the [ESC] key.
10. Use the [▼] key to select “Input Settings”.
11. Press the [ENTER] key.
12. Use the [▼] key to select “Signal Name Indicator”.



13. Use the [◀] and [▶] keys to select “On” or “Off”.
14. After you are finished, press the [MENU] key to exit the setup menu.

Direct Power On

You can configure the projector so it powers up automatically as soon as you plug it into a power source. With this “Direct Power On” feature, you do not even need to press the [⏻] (Power) key. To enable Direct Power On, display the Setup Menu, and then change the “Direct Power On” setting to “On”.



Important!

When you have Direct Power On enabled, do not leave the projector plugged into an electrical outlet while it is turned off. If you do, there is the chance that it (and the lamp) might turn on automatically when power is restored after being cut off by a power outage, tripping of a breaker, etc.



Note

- Direct Power On causes the projector to turn on automatically as soon as it is plugged into a power outlet. This greatly reduces the amount of time it takes until you are ready to start projecting. Note, however, that the actual startup sequence (Standby State → Power On → Projection Starts) that the projector performs is the same, regardless of whether Direct Power On is enabled or disabled. The only difference is what triggers the sequence (plugging in or pressing the [⏻] (Power) key). For details about the startup sequence that the projector performs when you plug it into a power source, see “To turn on the projector” in the separate “User’s Guide (Basic Operations)”.
- For details about configuring the Direct Power On setting, see “Direct Power On” under “Option Settings 1 Main Menu” on page 32.

Password Protecting the Projector

The password feature lets you keep unauthorized individuals from using the projector. You can specify whether password input is required whenever you turn on the projector, and you can specify and change the password as required. Use the setup menu "Option Settings 1 → Power On Password" setting to configure power on password settings.

Inputting a Password

The password of your projector is not really a "word" made up of letters, but rather a sequence of remote controller key inputs. The following is the 8-key sequence that represents the initial factory default password.

[INPUT] [AUTO] [BLANK] [FREEZE] [▲] [▼] [◀] [▶]

Using the Password Feature

Note the following precautions whenever you use the password feature.

- The password feature protects against unauthorized use of the projector. Note that it is not an anti-theft measure.
- You will need to enter the initial factory default password the first time you use the projector after turning on the password feature. Change the initial factory default password to a different one of your choice as soon as possible after turning on the password feature.
- Remember that password operations are always performed using the remote controller, so you should take care not to lose or misplace the remote controller.
- Also note that you will not be able to input the password if the remote controller batteries are dead. Replace the remote control batteries as soon as possible after it starts to go low.

If you forget your password...

You will not be able to use the projector if you forget the password for some reason. If you forget the password, you will need to bring the following two items to your CASIO distributor to have the password cleared. Note that you will be charged to have the password cleared.

1. Personal identification (original or copy of your driver's license, employee I.D., etc.)
2. Projector unit

Note that your CASIO distributor will not be able to clear the password of your projector unless you bring both of the items listed above.

Also, keep the projector's warranty in a safe place.



Important!

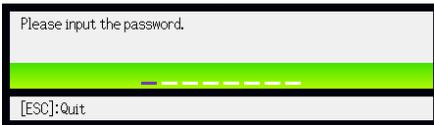
Having your password cleared using the procedure described above will return all of the settings of your projector, except for the lamp time, to their initial factory defaults.

Keep a written record of your password!

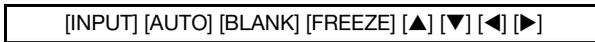
You will not be able to use the projector if you forget its password. We strongly suggest that you keep a written or other type of record of the password so you can look it up when necessary.

To change the password

1. Press the [MENU] key to display the setup menu.
2. Use the [▼] key to select “Option Settings 1”, and then press the [ENTER] key.
3. Use the [▼] key to select “Power On Password”, and then press the [ENTER] key.
 - This will display a dialog box prompting you to enter the current password.



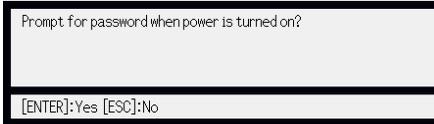
4. Enter the current password.
 - If the projector is still protected by the factory default password, perform the key operation shown below to enter it.



5. After entering the current password, press the [ENTER] key.
 - This displays the Power On Password setting screen.
6. Use the [▼] key to select “Change Password”, and then press the [ENTER] key.
 - This will display a dialog box prompting you to enter the new password.
7. Enter a key sequence up to eight key operations long.
 - You can use any of the following keys as part of your password key sequence.
[INPUT], [AUTO], [BLANK], [FREEZE], [VOLUME], [COLOR MODE], [D-ZOOM +], [D-ZOOM -], [KEYSTONE +], [KEYSTONE -], [MENU], [POINTER], [○], [△], [□], [▲], [▼], [◀], [▶], [FUNC]
8. After entering the new password, press the [ENTER] key.
 - This will display a dialog box prompting you to enter the same password again.
9. Re-enter the same password key sequence you entered in step 7 and then press the [ENTER] key.
 - The message “Your new password has been registered.” indicates that the password has been changed. Press the [ESC] key.
 - If the password you entered in this step is different from the one you entered in step 7, the message “The password you input is wrong.” appears. Press the [ESC] key to return to step 7.

To turn password protection on and off

1. Display the Power On Password setting screen by performing steps 1 through 5 of the procedure under “To change the password” on page 22.
 - At this time, make sure that “Power On Password” is selected on the Power On Password setting screen.
2. Use the [◀] and [▶] keys to select “On” or “Off”.
 - Changing the power on password setting from “Off” to “On” causes the confirmation dialog box shown below to appear.



Press the [ENTER] key to confirm that you want to turn on power on password protection, or [ESC] to exit the dialog box without doing anything.

3. After you are finished, press the [MENU] key to exit the setup menu.

Entering the Password when Turning On the Projector

When you turn on the projector while password protection is turned on will cause a password input dialog box to appear on the projection screen. All projector operations will be accessible to you after you input the correct password and press the [ENTER] key.



Note

You can perform the projection size adjustment operation ([ZOOM +] / [ZOOM -] keys), focus operation ([FOCUS ▲] / [FOCUS ▼] keys), and power off operation ([⏻] (Power) key) while the password input dialog box is on the projection screen.

Restoring Projector Settings to Their Initial Factory Defaults

You can use the procedures in this section to restore all of the settings on a particular main menu or all of the settings on the setup menu to their initial factory defaults.

To restore all settings on a particular main menu to their initial factory defaults

1. Press the [MENU] key to display the setup menu.
2. Use the [▼] and [▲] keys to select the main menu whose settings you want to restore to their initial factory defaults.
 - You can select Image Adjustment 1, Image Adjustment 2, Volume Adjustment, Screen Settings, Input Settings, Option Settings 1, or Option Settings 2.
3. Press the [ENTER] key.
4. Use the [▼] key to select “Restore Menu Defaults”.
5. Press the [ENTER] key.
 - This will display a confirmation screen like the screen shown below.



6. Use the [▲] key to select “Yes”.
7. To restore the settings of the main menu to their initial defaults, press the [ENTER] key.
 - To exit the operation without doing anything, press [ESC] instead of [ENTER].
8. After you are finished, press the [MENU] key to exit the setup menu.



Note

- The language setting and the password are not returned to their initial factory defaults if you select Option Settings 1 in step 2.
- For details about how the above procedure initializes settings, see the explanations of the settings under “Setup Menu Contents” on page 26.

To restore all settings on the setup menu to their initial factory defaults

- 1. Press the [MENU] key to display the setup menu.**
- 2. Use the [▼] key to select “Restore All Defaults” and then press the [ENTER] key.**
- 3. After confirming that “Restore All Defaults” sub-menu is selected, press the [ENTER] key.**
 - This displays a confirmation message asking if you want to initialize all settings.
- 4. Use the [▲] key to select “Yes”.**
- 5. To restore all settings on the setup menu to their initial defaults, press the [ENTER] key.**
 - This will restore all of the settings to their initial factory defaults, except for the Language, Lamp Time, Unit Operating Time and password settings.
 - To exit the operation without doing anything, press [ESC] instead of [ENTER].
- 6. After you are finished, press the [MENU] key to exit the setup menu.**

Setup Menu Contents

This section contains tables that provide detailed explanations of all of the items included on the setup menu. The following describes the type of information that appears in each of the columns of the tables.

Setting Name: This column shows the names of the settings as they appear on the sub-menu.

Input: This column shows the input source for which each setting is supported.

Input source names are abbreviated as follows:

R : RGB input

C : component video input

V : video input

H : HDMI (PC) input

D : HDMI (DTV) input

W : Wireless LAN input (USB port models only)

U : USB input (USB port models only)

The letter N indicates that the setting can be configured while there is no input signal.

Setting Unit: The setting unit indicates how a setting is stored.

“Source Specific” in this column indicates that separate settings can be stored for each individual input source. For example, you could store an “Image Adjustment 1 → Brightness” setting of -1 for RGB input and a setting of +1 for VIDEO input.

“Single” in this column indicates that a single setting is stored and applied, regardless of the input source.

Description: This column provides details about the setting item and how to select it. The initial default setting is indicated by an asterisk (*).

Image Adjustment 1 Main Menu

Setting Name	Input	Setting Unit	Description
Brightness	R C V H D W U	Source Specific	Use this sub-menu to adjust the brightness of the projected image. A larger value produces a brighter image.
Contrast	R C V H D W U	Source Specific	Use this sub-menu to adjust the contrast of the projected image. A larger value produces a stronger contrast.
Sharpness	V	Source Specific	Use this sub-menu to adjust the sharpness of the outlines in the projected image. A larger value makes the image sharper, while a smaller value makes it softer.
Saturation	V	Source Specific	Use this sub-menu to adjust the color saturation of the projected image. A larger value increases color saturation.
Tint	V	Source Specific	Use this sub-menu to adjust the tint of the projected image. A larger value makes the overall image more bluish, while a smaller value makes the overall image more reddish. This setting is supported only when the signal is NTSC or NTSC4.43.

Setting Name	Input	Setting Unit	Description
Color Mode	R C V H D W U	Source Specific	<p>You can select from among four different color mode settings to optimize the projected image in accordance with image contents and projection conditions.</p> <p>Standard: Use this setting when you want to highlight the colors of your presentation.</p> <p>Graphics: Use this setting when you want photographs and graphics to appear natural.</p> <p>Theater: Use this setting to bring out the dark portions of your images.</p> <p>Blackboard: Use this setting for easy viewing when projecting onto a blackboard.</p>
Color Balance	R C V H D W U	Source Specific	<p>This sub-menu lets you adjust the color balance of the projected image.</p> <p>Preset: You can select from among three preset color balance settings: Warm, Normal,* Cold.</p> <p>Color: You can adjust the intensity of red, green, and blue within the range of -50 to +50. The intensity of a color increases along with the setting value. Color settings can be adjusted individually only when "Normal" is selected as the "Preset" setting.</p>
Eco Off Mode	R C V H D W U	Single	<p>When "Off" is selected for "Option Settings 1 → Eco Mode", you can select either of the following projection image modes.</p> <p>Mode1: Gives priority to brightness.</p> <p>Mode2: Suppresses brightness slightly and gives priority to color balance.</p>
Restore Menu Defaults	R C V H D W U	Source Specific	<p>Use this sub-menu to return all of the sub-menu items on the Image Adjustment 1 main menu to their initial default settings.</p> <ul style="list-style-type: none"> ● Restoring menu defaults when there is no input signal will restore defaults for the currently selected input source.

Image Adjustment 2 Main Menu

Setting Name	Input	Setting Unit	Description
Vertical Position	R C V	Signal Specific	Use this sub-menu to adjust the vertical position of the input source image within the projection area.
Horizontal Position	R C V	Signal Specific	Use this sub-menu to adjust the horizontal position of the input source image within the projection area.
Frequency	R	Signal Specific	When vertical bands appear in the projected image while RGB is selected as the input source, it means that the frequency setting is not correct. When this happens, use this setting to adjust the frequency manually.  Important! _____ If, for some reason, your manual frequency settings cause the image input from the computer to disappear from the projection, you can press the [AUTO] key to perform an auto adjust operation, which should cause the image to appear.
Phase	R	Signal Specific	When there is flickering in the projected image while RGB is selected as the input source, it means that the phase setting is not correct. When this happens, use this setting to adjust the phase manually.
Restore Menu Defaults	R C V	Source Specific	Use this sub-menu to return all of the sub-menu items on the Image Adjustment 2 main menu to their initial default settings. <ul style="list-style-type: none"> ● Restoring menu defaults will restore defaults for the current signal type (XGA/60Hz, SXGA/60Hz, etc.) only.

About the “Signal Specific” Setting Unit

For the items that have “Signal Specific” in the “Setting Unit” column of the above table, the setting is saved for the specific type of signal (XGA/60Hz, SXGA/60Hz, etc.) that is being input when the setting is performed, and not for a specific input source.

Volume Adjustment Main Menu

Setting Name	Input	Setting Unit	Description
Volume	R C V H D W U N	Source Specific	Use this sub-menu to adjust the volume level of the projector’s speaker. <ul style="list-style-type: none"> ● Changing this setting when there is no input signal changes the volume setting of the currently selected signal source.
Restore Menu Defaults	R C V H D W U N	Source Specific	Use this sub-menu to return Volume to its initial default setting. <ul style="list-style-type: none"> ● Restoring menu defaults when there is no input signal will restore defaults for the currently selected input source.

Screen Settings Main Menu

Setting Name	Input	Setting Unit	Description
Keystone Correction	R C V H D W U N	Single	Use this sub-menu to correct vertical keystone of the projected image.
Aspect Ratio	R C V H D	Source Specific	<p>Use this sub-menu to select an aspect ratio setting for the projected image.</p> <p>Input Source: RGB or HDMI (PC)</p> <p>Normal*: Projects at the projector's maximum possible size while maintaining the input signal aspect ratio.</p> <p>Full: Projects at the projector's maximum possible size by enlarging or reducing the input signal.</p> <p>True (XJ-A230/XJ-A235/XJ-A240/XJ-A245 only): Projects the input signal at its actual size (1 input source dot equal to one projector output pixel dot) in the center of the projector's projection screen. If the input signal resolution exceeds the projector's output resolution, the excess is cut off.</p> <p>Input Source: VIDEO, Component or HDMI (DTV)</p> <p>Normal*: Projects at the projector's maximum possible size while maintaining the input signal aspect ratio.</p> <p>16:9 : This setting specifies a 16:9 aspect ratio, which is the same as a movie screen, high-definition TV, etc. Using this setting when the input signal is a 16:9 image that has been squeezed to a 4:3 image causes the image to be displayed with its normal 16:9 aspect ratio.</p> <p>Letter Box (XJ-A230/XJ-A235/XJ-A240/XJ-A245 only): This will resize the image horizontally to 1280 dots and project 800 vertical dots of the center of the image, maintaining the aspect ratio of the input signal.</p> <p> Note</p> <ul style="list-style-type: none"> ● When the input source is a component or an HDMI (DTV) signal with an aspect ratio of 16:9, the aspect ratio is fixed at 16:9. The aspect ratio setting cannot be changed in this case. ● When projecting while "True" is selected as the aspect ratio setting for an RGB signal with a resolution that is less than SVGA, the image is enlarged to SVGA and projected. ● For details about projection screen display conditions for different aspect ratio settings, see "Aspect Ratio Setting and Projection Image" (page 44). <p> Important!</p> <p>Note that enlarging or reducing the size of an image for commercial purposes or public presentation may infringe on the legally protected copyright of the copyright holder of the original material.</p>

Setting Name	Input	Setting Unit	Description
Projection Mode	R C V H D W U N	Single	Use this sub-menu to specify whether projection will be from the front of the screen or the back of the screen. Front*: Select this option to project from the front of the screen. Rear: Select this option to project from the back of the screen. This setting flips the front projected image horizontally.
Ceiling Mount	R C V H D W U N	Single	Use this sub-menu to configure the projector for use in an installation in which it is positioned upside down. On: Flips the projected image horizontally and vertically. Off*: Projects a normal image.
Startup Screen	R C V H D W U N	Single	Use this sub-menu to specify whether or not a startup screen should be projected whenever the projector is turned on. Logo: Select this option to project the projector's built-in logo screen at startup. None*: Select this option when you do not want to project a startup screen.
No Signal Screen	R C V H D W U N	Single	Use this sub-menu to specify what should be projected when there is no input signal to the projector. Blue*: Select this option to project a blue screen. Black: Select this option to project a black screen. Logo: Select this option to project the projector's built-in logo screen.
Blank Screen	R C V H D W U N	Single	Use this sub-menu to specify what should be projected after the [BLANK] key is pressed. Blue: Select this option to project a blue screen. Black*: Select this option to project a black screen. Logo: Select this option to project the projector's built-in logo screen.
Restore Menu Defaults	R C V H D W U N	Source Specific	Use this sub-menu to return all of the sub-menu items on the Screen Settings main menu to their initial default settings. <ul style="list-style-type: none"> ● Restoring menu defaults when there is no input signal will restore defaults for the currently selected input source. ● Note that the "Keystone Correction", "Projection Mode", "Ceiling Mount", "Startup Screen", "No Signal Screen", and "Blank Screen" settings are always returned to their initial defaults, regardless of the currently selected input source.

Input Settings Main Menu

Setting Name	Input	Setting Unit	Description
COMPUTER Terminal	R C	Single	<p>Use this sub-menu to specify manually the type of signal being input from the projector's COMPUTER terminal.</p> <p>Auto*: Automatically detects the signal being input from the COMPUTER terminal and configures the appropriate input protocol.</p> <p>RGB: Select this option when a computer is connected to the COMPUTER terminal. For details about connecting a computer, see "Connecting a Computer to the Projector" in the "User's Guide (Basic Operations)".</p> <p>Component: Select this setting when the projector's COMPUTER terminal is connected to the component video output terminal of a video device using a commercially available component video cable. For information about connection, see "Connecting to a Component Video Output Device" (page 40).</p>
Video Signal	V	Single	<p>Use this sub-menu to specify manually the type of signal being input from the projector's AV terminal.</p> <p>Auto*: Select this setting to have the projector switch the video signal system automatically in accordance with the input signal from the video device that is connected to the AV terminal.</p> <p>NTSC / NTSC4.43 / PAL / PAL-M / PAL-N / PAL60 / SECAM: Each setting selects the applicable video system. Use these settings when you want to specify only one specific video signal for the AV terminal.</p>
Signal Name Indicator	R C V H D W U N	Single	<p>Use this sub-menu to specify whether or not the name of the currently selected signal source should be displayed in the projected image.</p> <p>On*: Select this option to turn on display of the name of the currently selected signal source in the projected image.</p> <p>Off: Select this option to turn off display of the signal source name.</p>
Restore Menu Defaults	R C V H D W U N	Source Specific	<p>Use this sub-menu to return all of the sub-menu items on the Input Settings main menu to their initial default settings.</p> <ul style="list-style-type: none"> ● Restoring menu defaults when there is no input signal will restore defaults for the currently selected input source. ● Note that the "Signal Name Indicator" setting is always returned to its initial default, regardless of the currently selected input source.

Option Settings 1 Main Menu

Setting Name	Input	Setting Unit	Description
Auto Keystone Correction	R C V H D W U N	Single	Use this sub-menu to turn auto keystone correction on or off. On*: Select this option to turn on auto keystone correction. Off: Select this option to turn off auto keystone correction.
Auto Adjust	R C V H D W U N	Source Specific	Use this sub-menu to select whether the projector should detect the RGB input signal type (resolution, frequency) and adjust the projection image accordingly (auto adjust). 1*: Select this option to turn on auto adjust. 2: Select this option to turn on auto adjust when a 1360 × 768 or 1400 × 1050 signal is not projected correctly. Off: Select this option to turn off auto adjust.
Eco Mode	R C V H D W U N	Single	Specifies whether priority should be giving to low-power, low-noise operation or to lamp brightness. On (Level2): Gives maximum priority to low-power, low-noise operation. On (Level1): Provides low-power, low-noise operation while maintaining lamp brightness to some level. Off: Gives maximum priority to lamp brightness.
Auto Power Off	R C V H D W U N	Single	Auto Power Off lets you specify the amount of time of projector operation and input signal inactivity to be allowed before Auto Power Off is triggered to turn off projector power automatically. Auto Power Off can be disabled, if you want. 5 min, 10 min*, 15 min, 20 min, 30 min: Time until Auto Power off is triggered. Off: Disables Auto Power Off.
Power On Password	R C V H D W U N	Single	You can configure the projector to require input of a password before operation is enabled. For details, see “Password Protecting the Projector” on page 21.
Direct Power On	R C V H D W U N	Single	Use this sub-menu to turn Direct Power On on or off. See “Direct Power On” on page 20. On: Select this option to turn on Direct Power On. Off*: Select this option to turn off Direct Power On.

Setting Name	Input	Setting Unit	Description
Language	R C V H D W U N	Single	Use this sub-menu to specify the language to use for messages, setup menus, etc. English / French / German / Italian / Spanish / Swedish / Chinese (Simplified) / Chinese (Traditional) / Korean / Japanese
Restore Menu Defaults	R C V H D W U N	Single	This sub-menu returns all of the sub-menu items on the Option Settings 1 main menu to their initial default settings. <ul style="list-style-type: none"> ● The language setting and the password are not returned to their initial factory defaults. ● The "Auto Adjust" item is returned to its initial default only when RGB input is selected for the input source. All of the other items are returned to their initial defaults regardless of the currently selected input source.

Option Settings 2 Main Menu

Setting Name	Input	Setting Unit	Description
Zoom Memory	R C V H D W U N	Single	Use this sub-menu to turn zoom memory on or off. Zoom memory lets you save the zoom setting when the projector is turned off, so it can be restored automatically the next time the projector is turned on. On*: Select this option when you want to restore the zoom setting that was in effect when the projector was last turned off, whenever it is turned on. Off: Select this option when you want the image to be projected at its maximum size whenever you turn on the projector.  Note _____ Zoom Memory does not function if the projector is turned off by unplugging its power cord from the power outlet without pressing the [P] (Power) key.
Pointer	R C V H D W U N	Single	Use this sub-menu to specify the type of pointer that appears first when you press the [POINTER] key.
Plug and Play (USB port models only)	R C V H D W U N	Single	Use this sub-menu to turn plug-and-play*1 on or off. On*: Select this option to turn on plug-and-play. This will allow the projector detect when an external USB device is connected and make that device the input source automatically. Off: Select this option to turn off plug-and-play.
USB Audio Out (USB port models only)	R C V H D W U N	Single	When playing back a movie file stored on a USB memory device, you can select audio output from the projector's built-in speaker or to the line output. Speaker*: Select to output movie file audio from the speaker. Line: Select to output movie file audio from the AV terminal.

Setting Name	Input	Setting Unit	Description
HDMI Audio Out	R C V H D W U N	Single	Specifies whether the input audio signal should be output from the projector's built-in speaker or to the line output. Speaker*: Outputs the audio signal being input to the HDMI port from the speaker. Line: Outputs the audio signal being input to the HDMI port from the AV terminal.
High Altitude	R C V H D W U N	Single	Use this sub-menu to turn the high-altitude fan speed setting on or off in accordance with the altitude of the area where you are using the projector. On: Select this setting when using the projector in a high altitude (1,500 to 3,000 meters above sea level) area where air is thin. This setting increases cooling efficiency. Off*: Select this setting at normal altitudes (up to 1,500 meters).  Important! _____ Do not use this projector at altitudes greater than 3,000 meters above sea level.
Restore Menu Defaults	R C V H D W U N	Single	This sub-menu returns all of the sub-menu items on the Option Settings 2 main menu to their initial default settings.

*1 When plug-and-play is turned on, the projector will make that device the input source automatically. For details about plug-and-play, see “USB Function Guide” on the bundled CD-ROM.

USB Settings Main Menu (USB Port Models Only)

The USB Settings main menu is available only when there is an external device connected to the USB port of the projector. For details, see “USB Function Guide” on the bundled CD-ROM.

Wireless Main Menu (USB Port Models Only)

The Wireless main menu is available only when “Wireless” is selected as the input source on the projector. For more information, see the “Wireless Function Guide” on the CD-ROM that comes with the projector.

Operational Info Main Menu

Setting Name	Input	Setting Unit	Description
Input Signal	R C V H D W U N	Source Specific	This sub-menu item shows the currently selected input signal (RGB, Component, VIDEO, HDMI (PC), or HDMI (DTV)). “- - - -” is indicated here when there is no input signal.
Signal Name	R C V H D W U	Source Specific	This sub-menu item shows the signal name of the signal being input to the projector. For details about signal names, see “Signal Name” under “Supported Signals” on page 48.
Resolution	R H	Source Specific	This sub-menu item appears only when RGB is the input signal. It shows the number of vertical and horizontal pixels of resolution of the RGB or HDMI (PC) input signal.
Horizontal Frequency	R C V H D	Source Specific	This sub-menu item shows the horizontal frequency of the input signal.
Vertical Frequency	R C V H D	Source Specific	This sub-menu item shows the vertical frequency of the input signal.
Scan System	R C H D	Source Specific	This sub-menu item appears only when RGB, Component, HDMI (PC), or HDMI (DTV) is the input signal, and shows the scan system of the input signal. The scan system is interlace or non-interlace for an RGB or HDMI (PC) signal input, and interlace or progressive for a component or HDMI (DTV) signal input.
Lamp Time	R C V H D W U N	Single	This sub-menu item shows the cumulative number of hours the current lamp has been used to date.

Restore All Defaults Main Menu

Setting Name	Input	Setting Unit	Description
Unit Operating Time	R C V H D W U N	Single	This sub-menu item shows the cumulative operating time of this unit. This time cannot be initialized.
Restore All Defaults	R C V H D W U N	Single	This sub-menu returns all sub-menu items on all main menus to their initial default settings. This operation can be performed regardless of the currently selected input source and regardless of whether or not a signal is currently being input. For details about this procedure, see “To restore all settings on the setup menu to their initial factory defaults” on page 25.

Cleaning the Projector

Periodically clean the projector exterior, lens, intake vents, and exhaust vents on a regular basis.



Important!

Before cleaning the projector, be sure to unplug it from the power outlet and make sure it is cooled down completely.

Cleaning the Projector Exterior

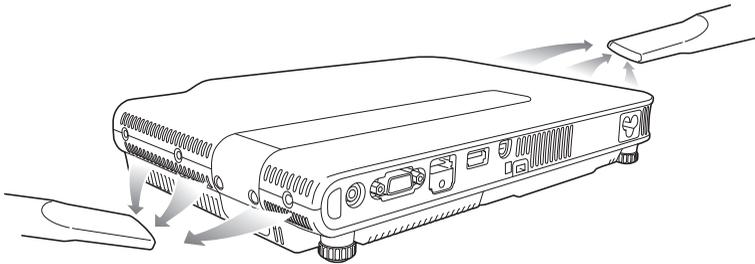
Wipe the exterior of the projector with a soft cloth that has been moistened in a weak solution of water and a mild neutral detergent. Be sure to wring all excess moisture from the cloth before wiping. Never use benzene, alcohol, thinner, or any other volatile agent for cleaning.

Cleaning the Lens

Carefully wipe the lens with a commercially available lens cloth or optical lens paper, like those for eyeglasses or camera lenses. When cleaning the lens, be very careful to avoid scratching it.

Cleaning Intake and Exhaust Vents

Dust and dirt tend to collect around the intake vents. Because of this, you should use a vacuum cleaner to clean away accumulated dust and dirt periodically as shown below.



Important!

- Continued use of the projector after dust has accumulated around the intake vents can cause overheating of internal components and lead to malfunction.
- Certain operating conditions also can cause dirt and dust to accumulate around the projector's exhaust vents on the front. If this happens, use the same procedure as that described above to clean the exhaust vents.

Error Indicators and Warning Messages

Warning messages and indicators let you know what the problem is when a projector error occurs. When an error occurs, wait until the fan stops before unplugging the AC power cord. If you unplug the AC power cord while the fan is still operating, an error may occur when you plug the AC power cord back in.

Indicator/Error Message	Description and Required Action
<p>POWER : Green steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : Internal temperature is too high. Check projector air vents for blockage.</p>	<p>The projector's internal temperature is very high. Press the [ESC] key to clear the warning message and perform the following steps.</p> <p>① Check for any blocking of the projector's intake vents and exhaust vents, and make sure that there is sufficient space around the projector. See "Setup Precautions" in the "User's Guide (Basic Operations)".</p> <p>② If there is dust accumulated around the intake vents and/or exhaust vents, turn off the projector and remove it. See "Cleaning the Projector" (page 36).</p>
<p>POWER : Amber flashing → Amber steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : Internal temperature is too high. The projector will turn off.</p>	<p>Power has turned off automatically due to internal overheating. Perform the following steps.</p> <p>① Check for any blocking of the projector's intake vents and exhaust vents, and make sure that there is sufficient space around the projector. See "Setup Precautions" in the "User's Guide (Basic Operations)".</p> <p>② If there is dust accumulated around the intake vents and/or exhaust vents, remove it. See "Cleaning the Projector" (page 36).</p> <p>If there is no problem with the projector's vents, confirm that the POWER/STANDBY indicator is lit amber (without flashing), and then turn power back on again. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p>
<p>POWER : Amber flashing → Red steady</p> <p>TEMP : Red flashing (0.5-second interval)</p> <p>LAMP : –</p> <p>Message : –</p>	<p>Power has turned off automatically due to internal overheating. This causes a dialog box containing the text in the next item below to appear the next time you turn on the projector. Follow the steps that are provided.</p>
<p>POWER : Green steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : The projector has a history of turning off due to high temperature. Check air vents for blockage.</p>	<p>The last time you were using the projector, power turned off automatically due to internal overheating. Press the [ESC] key to clear the warning message and perform the following steps.</p> <p>① Check for any blocking of the projector's intake vents and exhaust vents, and make sure that there is sufficient space around the projector. See "Setup Precautions" in the "User's Guide (Basic Operations)".</p> <p>② If there is dust accumulated around the intake vents and/or exhaust vents, turn off the projector and remove it. See "Cleaning the Projector" (page 36).</p> <p>③ Disconnect the power cord from the projector and wait for all of the projector's indicators to go out. Next, reconnect the power cord and turn the projector back on. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p>

Indicator/Error Message	Description and Required Action
<p>POWER : Amber flashing → Red steady</p> <p>TEMP : Red steady</p> <p>LAMP : Red steady</p> <p>Message : There is a problem with the fan. The projector will turn off.</p>	<p>Power has turned off automatically due to a fan problem. Confirm that the POWER/STANDBY indicator is lit red (without flashing) and that the fan has stopped. After checking the POWER/STANDBY indicator, disconnect the power cord from the projector and wait for all of the projector's indicators to go out. Next, reconnect the power cord and turn projector power back on.</p> <p>If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p>
<p>POWER : Amber flashing → Red steady</p> <p>TEMP : Red steady</p> <p>LAMP : –</p> <p>Message : A system problem has occurred. The projector will turn off.</p>	<p>Power has turned off automatically due to a system problem. After confirming that the POWER/STANDBY indicator is lit red (without flashing), disconnect the power cord from the projector and wait for all of the projector's indicators to go out. Next, reconnect the power cord and turn the projector back on.</p> <p>If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p>
<p>POWER : Green steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : A system problem has occurred. Normal projection is not possible.</p>	<p>A system problem has occurred, which may cause problems with some functions. Turn off the projector, disconnect the power cord from the projector and wait for all of the projector's indicators to go out. Next, reconnect the power cord and turn the projector back on.</p> <p>If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p> <p>Press the [ESC] key to clear the warning message.</p>
<p>POWER : Green steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : There is some problem with the system. The audio function may not operate correctly.</p>	
<p>POWER : Green steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : There is a problem with the USB port.</p>	<p>The USB connection was terminated because of a problem with the USB port. To use the USB function, turn off the projector and then turn it back on again.</p> <p>If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p> <p>Press the [ESC] key to clear the warning message.</p>
<p>POWER : Green steady</p> <p>TEMP : –</p> <p>LAMP : –</p> <p>Message : Zoom and focus cannot be performed for some reason. Try turning the projector off and then back on again. If this message reappears, request servicing.</p>	<p>Zoom and focus cannot be performed due to some trouble in the optical drive circuit. Turn off the projector and then turn it back on again.</p> <p>If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.</p> <p>Press the [ESC] key to clear the warning message.</p>

Indicator/Error Message	Description and Required Action
POWER : Amber flashing → Red steady TEMP : Red steady LAMP : – Message : –	The projector was turned off automatically due to some problem that was probably caused by external digital noise or some other reason. Confirm that the POWER/STANDBY indicator is lit red (without flashing). After checking the POWER/STANDBY indicator, disconnect the power cord from the projector and wait for all of the projector's indicators to go out. Next, reconnect the power cord and turn projector power back on. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.
POWER : Amber flashing → Red steady TEMP : Red flashing (0.5-second interval) LAMP : Red flashing (0.5-second interval) Message : –	The projector was turned off automatically because the lamp turned off or did not turn on. After confirming that the POWER/STANDBY indicator is lit red (without flashing), unplug the power cord. Wait for a short while and then plug it back in and turn on the projector again. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.
POWER : Amber flashing → Red steady TEMP : Red flashing (2-second interval) LAMP : Not lit or red flashing Message : –	Power has turned off automatically due to a projector memory error. Confirm that the POWER/STANDBY indicator is lit red (without flashing). After checking the POWER/STANDBY indicator, disconnect the power cord from the projector and wait for all of the projector's indicators to go out. Next, reconnect the power cord and turn projector power back on. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.
POWER : Amber flashing → Red steady TEMP : Amber flashing (1-second interval) LAMP : – Message : –	Power has turned off automatically because the lamp cover is open. Perform the following steps. ① After confirming that the POWER/STANDBY indicator is lit red (without flashing), disconnect the power cord from the projector. ② Check to make sure that the lamp cover is closed. ③ Plug the power cord back in and turn the projector back on again. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.

Connecting to a Component Video Output Device

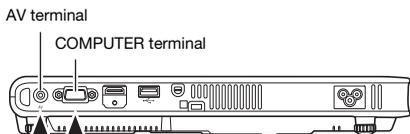
Some video devices are equipped with a component video output terminal. You can use an commercially available component video cable to connect the COMPUTER terminal of the projector to the component video output terminal of a video device.



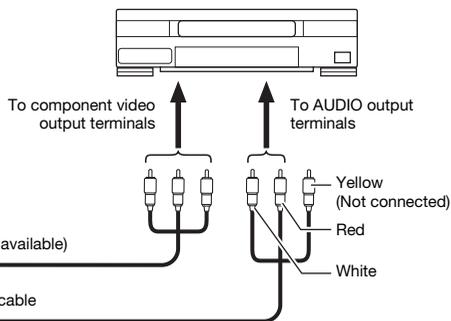
Important!

Always turn off the projector and the video device before connecting them.

Projector



Video device



- Component video output terminals come in 3-terminal sets: Y·Cb·Cr or Y·Pb·Pr. Be sure to match the colors of the plugs on a component video cable with the colors of the terminals (Green: Y; Blue: Cb/Pb; Red: Cr/Pr).
- Note that connection only to an analog component video output terminal is supported. Connection to a digital output terminal is not supported.

Connecting the HDMI Output of a Video Device or Computer to the Projector

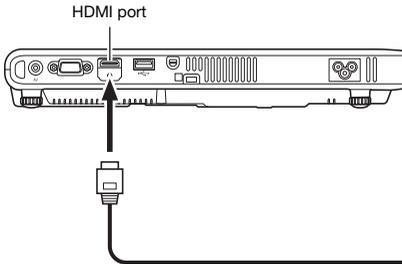
The projector supports projection and output of HDMI video and audio output from a computer or video device.



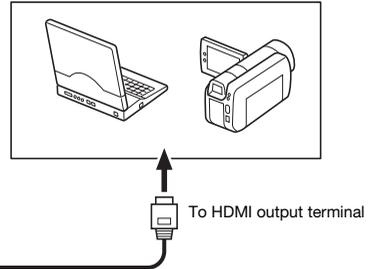
Important!

Turn off the projector and the computer or video device before connecting them.

Projector



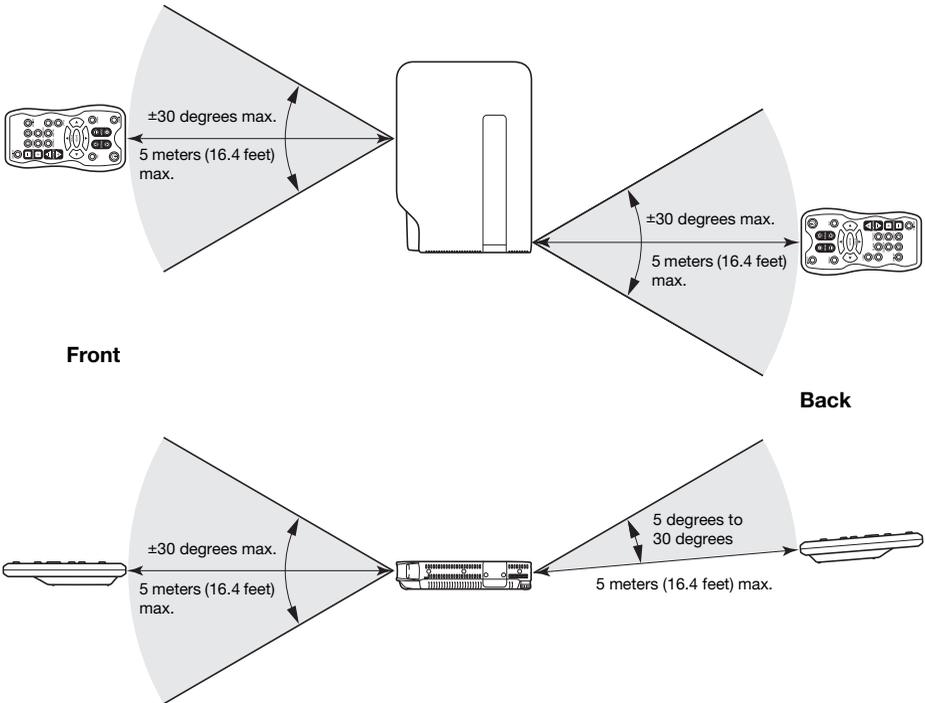
Computer or video device



- You will need to obtain a commercially available HDMI cable with a connector that matches the terminal of the output device on one end and a connector that matches the projector's HDMI port (HDMI Type A Socket) on the other end.
- For information about HDMI video signal supported by the projector, see page 50.
- The projector supports L-PCM 32kHz, 44.1kHz, and 48kHz HDMI audio signals.

Remote Controller Signal Range

When performing an operation on the remote controller, point it at the remote control signal receiver on the back or front of the projector. The following illustration shows the range of the remote controller signal.



Remote Controller Range

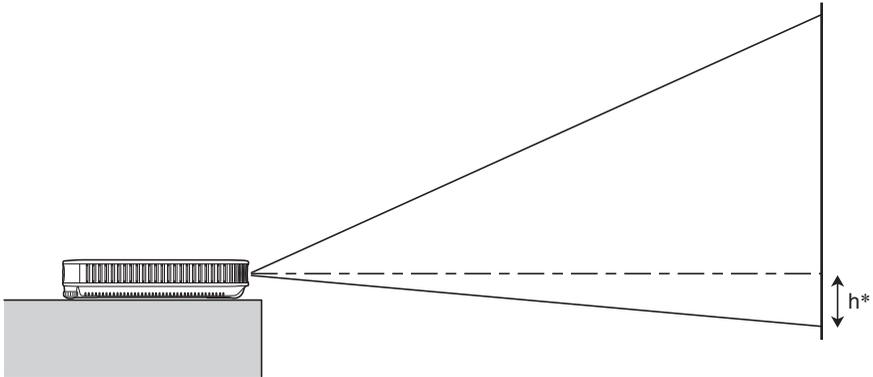
- The range of the remote controller may be narrower and/or shorter than that shown on the right (Back) when there is a special AV cable plugged into the AV terminal on the back of the projector.
- The allowable distance between the remote controller and the projector is less when there is a sharp angle between the remote controller and the remote control signal receiver.



Important!

To avoid running down the batteries, store the remote control unit so its keys are not pressed inadvertently.

Projection Distance and Screen Size



The following table shows the relationship between the distance and projected image size.

Projection Size		Approximate Projection Distance					
		XJ-A130/XJ-A135/ XJ-A140/XJ-A145			XJ-A230/XJ-A235/XJ-A240/XJ-A245		
Screen Size	Diagonal (cm)	Minimum Distance (m / feet)	Maximum Distance (m / feet)	h^*	Minimum Distance (m / feet)	Maximum Distance (m / feet)	h^* (cm / inch)
40	102	1.1 / 3.61	2.2 / 7.22	0	1.0 / 3.28	1.9 / 6.23	9 / 3.54
60	152	1.7 / 5.58	3.4 / 11.15	0	1.4 / 4.59	2.8 / 9.19	14 / 5.51
80	203	2.3 / 7.55	4.5 / 14.76	0	1.9 / 6.23	3.8 / 12.47	18 / 7.09
100	254	2.8 / 9.19	5.6 / 18.37	0	2.4 / 7.87	4.8 / 15.75	23 / 9.06
150	381	4.3 / 14.11	8.5 / 27.89	0	3.6 / 11.81	7.2 / 23.62	34 / 13.39
200	508	5.7 / 18.70	11.3 / 37.07	0	4.8 / 15.75	9.6 / 31.50	45 / 17.72

* h = Height from the center of the lens to the bottom edge of the projection screen.



Important!

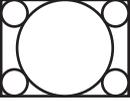
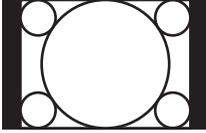
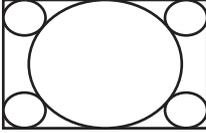
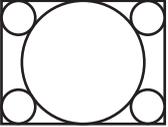
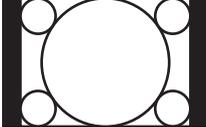
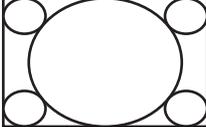
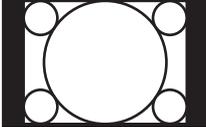
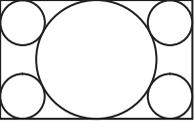
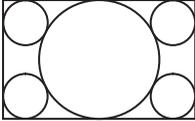
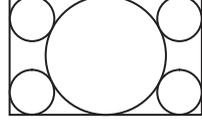
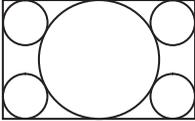
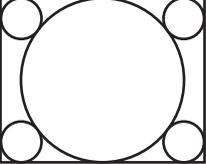
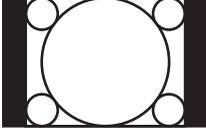
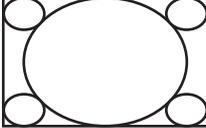
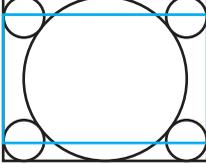
Note that the distances provided above are for reference only.

Aspect Ratio Setting and Projection Image

The following shows how images are projected in accordance with the type of the input signal and the aspect ratio setting of the projector.

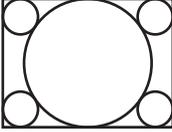
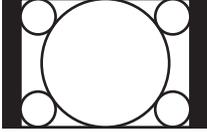
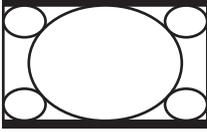
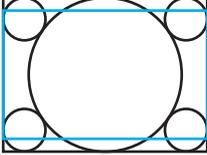
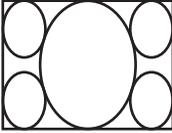
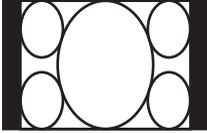
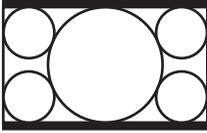
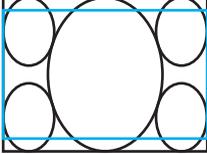
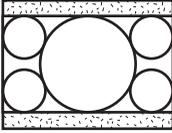
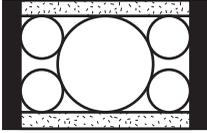
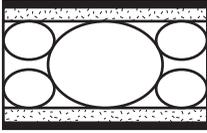
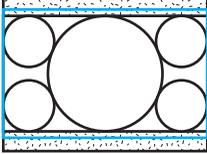
XJ-A230/XJ-A235/XJ-A240/XJ-A245

Input source: RGB or HDMI (PC)

Input Signal	Normal	Full	True
SVGA (800 × 600) 			
XGA (1024 × 768) 			
WXGA (1280 × 800) 			
SXGA (1280 × 1024) 			 *

* The blue boundary indicates the projection area.

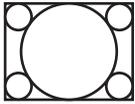
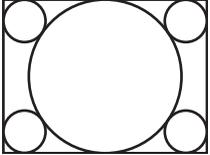
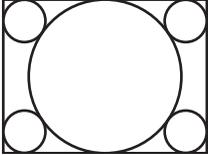
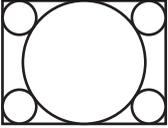
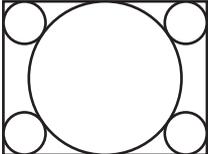
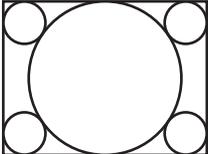
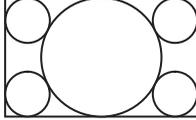
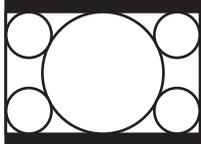
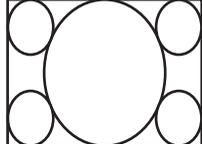
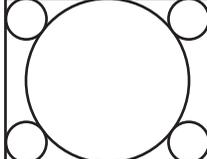
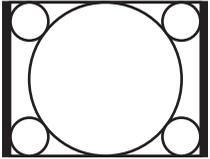
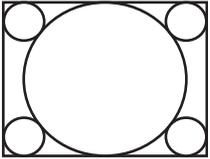
Input source: Video, component or HDMI (DTV)

Input Signal	Normal	16:9	Letter Box
<p>4:3 Aspect Image</p> 			 <p style="text-align: right;">*</p>
<p>Squeezed Image</p> 			 <p style="text-align: right;">*</p>
<p>Letter Box Image</p> 			 <p style="text-align: right;">*</p>

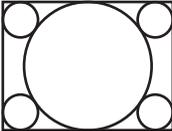
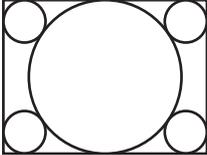
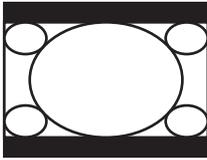
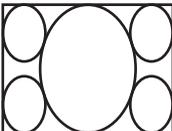
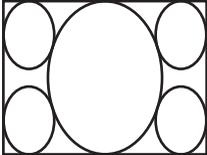
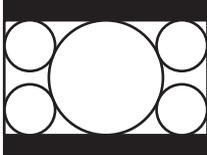
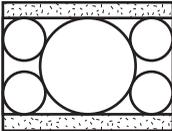
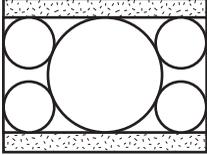
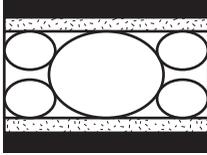
* The blue boundary indicates the projection area.

XJ-A130/XJ-A135/XJ-A140/XJ-A145

Input source: RGB or HDMI (PC)

Input Signal	Normal	Full
SVGA (800 × 600) 		
XGA (1024 × 768) 		
WXGA (1280 × 800) 		
SXGA (1280 × 1024) 		

Input source: Video, component or HDMI (DTV)

Input Signal	Normal	16:9
<p>4:3 Aspect Image</p> 		
<p>Squeezed Image</p> 		
<p>Letter Box Image</p> 		

Supported Signals

RGB Signal

	Signal Name	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
VESA	640 × 480/60	640 × 480	31.5	60
	640 × 480/72	640 × 480	37.9	73
	640 × 480/75	640 × 480	37.5	75
	640 × 480/85	640 × 480	43.3	85
	800 × 600/56	800 × 600	35.2	56
	800 × 600/60	800 × 600	37.9	60
	800 × 600/72	800 × 600	48.1	72
	800 × 600/75	800 × 600	46.9	75
	800 × 600/85	800 × 600	53.7	85
	1024 × 768/60	1024 × 768	48.4	60
	1024 × 768/70	1024 × 768	56.5	70
	1024 × 768/75	1024 × 768	60.0	75
	1024 × 768/85	1024 × 768	68.7	85
	1152 × 864/75	1152 × 864	67.5	75
	1280 × 768/60	1280 × 768	47.8	60
	1280 × 800/60	1280 × 800	49.7	60
	1280 × 960/60	1280 × 960	60.0	60
	1280 × 960/85	1280 × 960	85.9	85
	1280 × 1024/60	1280 × 1024	64.0	60
	1280 × 1024/75	1280 × 1024	80.0	75
	1280 × 1024/85	1280 × 1024	91.1	85
	1360 × 768/60*	1360 × 768	47.7	60
	1400 × 1050/A*	1400 × 1050	65.3	60
1440 × 900/60	1440 × 900	55.9	60	
1600 × 1200/60	1600 × 1200	75.0	60	
1680 × 1050/60	1680 × 1050	65.3	60	
Other	1152 × 864/70	1152 × 864	64.0	70
	1400 × 1050/B*	1400 × 1050	64.0	60

* If these signals do not project correctly, change the “Option Settings 1 → Auto Adjust” setting to “2” (page 32).

Component Signal

	Signal Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
HDTV	1080p/50	56.3	50
	1080p/60	67.5	60
	720p/50	37.5	50
	720p/60	45.0	60
	1080i/50	28.1	50
	1080i/60	33.7	60
SDTV	576p/50	31.3	50
	576i/50	16.6	50
	480p/60	31.5	60
	480i/60	15.7	60

Video Signal

Signal Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
NTSC	15.7	60
NTSC4.43	15.7	60
PAL	15.6	50
PAL-M	15.7	60
PAL-N	15.6	50
PAL60	15.7	60
SECAM	15.6	50

* Listing of a device in the above table does not guarantee that you will be able to display its images correctly.

HDMI Signal

Signal Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 × 480/60	31.5	60
800 × 600/60	37.9	60
1024 × 768/60	48.4	60
1280 × 768/60	47.8	60
1280 × 800/60	49.7	60
1280 × 960/60	60	60
1280 × 1024/60	64	60
1400 × 1050/60	65.3	60
SDTV (480p)	31.5	60
SDTV (576p)	31.25	50
HDTV (720p) (50)	37.5	50
HDTV (720p) (60)	45	60
HDTV (1080i) (50)	28.13	50
HDTV (1080i) (60)	33.75	60
HDTV (1080p) (50)	56.25	50
HDTV (1080p) (60)	67.5	60

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