

DATA PROJECTOR

XJ-A135/XJ-A145/XJ-A155/ XJ-A245/XJ-A255

Data Projector

Wireless Function Guide

- Be sure to read the precautions in the User's Guide (Basic Operations) that comes with the Data Projector.
- Be sure to keep all user documentation handy for future reference.

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About This Manual...

This manual explains how to establish a wireless LAN connection between a CASIO XJ-A135, XJ-A145, XJ-A155, XJ-A245, or XJ-A255 Data Projector and a computer, and send computer screen contents to the projector for projection.

Terms and Conventions

In this manual, there are many procedures that require parallel operations on the Data Projector and your computer. The following are special terms and conventions used in this manual to differentiate between the Data Projector and computer.

- **Projection area**

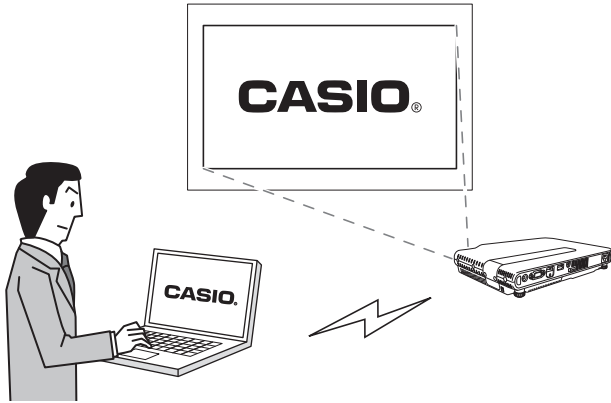
This is the entire rectangular area that is projected by the Data Projector. Certain Data Projector operations will cause messages and menus to appear within the projection area.

- **Computer screen**

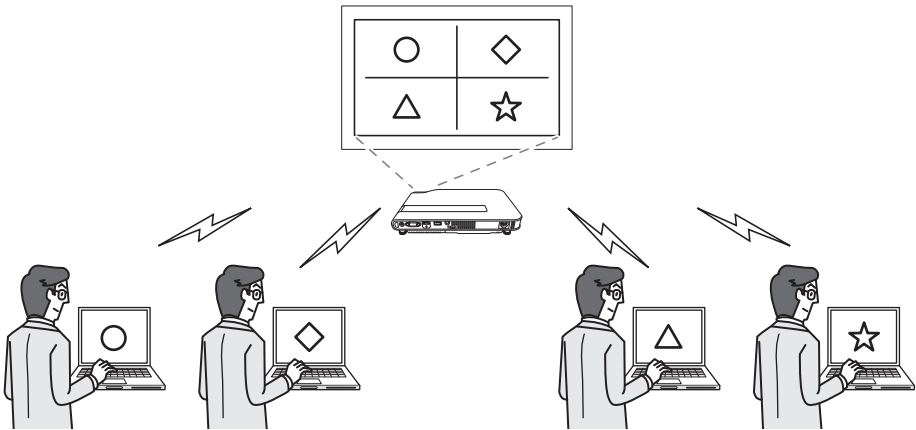
This is the physical display device of your computer.

What the Wireless Function Lets You Do...

The projector has a built-in function that lets it operate as a wireless LAN access point. After a wireless LAN connection is established with a computer, the contents of the computer screen can be sent to the projector for projection.



The projector supports simultaneous wireless LAN connections with up to four computers. The projection screen can be divided into four parts for simultaneous projection of the screen contents of all four connected computers.



Important!

To perform the above operation, the Wireless Connection 3 software that comes with the projector must be installed on a computer equipped with a wireless LAN function (IEEE 802.11b/g/n). For more information, see “Installing Wireless Connection 3” (page 8).

Projector Requirements

The projector must meet the following conditions in order to use a wireless LAN connection to project computer screen contents.

- The wireless adapter that comes with the projector must be installed correctly on the projector. See “Installing and Removing the Wireless Adapter” (page 40) for details.
- The Wireless Connection 3 software that comes with the projector must be installed on a computer equipped with a wireless LAN function (IEEE 802.11b/g/n).

Note that the following operations are not supported.

- Use of a CASIO YW-2L wireless adapter or a commercially available wireless LAN adapter in the projector’s USB port. Such adapters will not provide proper operation.
- Any software other than Wireless Connection 3 that comes with a CASIO data projector or any third-party wireless LAN connection software. You will not be able to establish a wireless LAN connection between your computer and the projector using such software.

Installing Wireless Connection 3

Minimum System Requirements

You need to install Wireless Connection 3 on your computer in order to send computer screen contents to the projector over a wireless connection for projection.

Operating System: Microsoft® Windows® 7, Windows Vista® SP2, Windows® XP SP3

Computer : IBM PC/AT or compatible that satisfies the following conditions.

- Windows® 7, Windows Vista®, or Windows® XP pre-installed
 - **CPU:** Pentium® M 1.6GHz or higher, or CPU recommended for operating system being used
 - **Memory:** The amount of memory recommended for operating system being used
 - **Display:** Full-color display with resolution of at least 1024 × 768 that is supported by above operating systems and the computer being used.
 - **Input Device:** Keyboard or other pointing device (mouse or equivalent device supported by above operating systems)
 - **Wireless LAN:** IEEE 802.11b/g/n
-
- Other requirements of operating system being used
 - Normal operation may not be possible under certain hardware configurations.
 - Operation is not supported on a computer running Windows® 2000, NT, Me, 98SE, 98, 95, or 3.1, or on a Macintosh or Mac OS computer.
 - Operation on a computer upgraded to Windows® 7, Windows Vista®, or Windows® XP from another operating system is not guaranteed.
 - Operation on a computer running Windows® XP Professional x64 Edition is not supported.

Installing Wireless Connection 3

1. Place the CD-ROM that comes with the projector into your computer's CD-ROM drive.
 - This will automatically display the CD-ROM menu screen.
2. On the menu screen, click the [Install] button to the right of "Wireless Connection 3".
 - Follow the instructions on the dialog boxes that appear on the screen.
 - If you are running Windows 7 and the "User Account Control" message appears while installing, click [Yes].
 - If you are running Windows Vista and the "User Account Control" message appears while installing, click [Continue].
 - If you are running Windows XP and message shown below appears while installing, click [Continue Anyway].



Installing Wireless Connection 3 on a Second and Subsequent Computers

You can use the Wireless Connection 3 token wizard to install Wireless Connection 3 on USB memory. Then you can plug the USB memory to the USB port of any computer and start up Wireless Connection 3 from there. This means it is not necessary to install Wireless Connection 3 from the CD-ROM on each computer that will connect with the projector over the wireless LAN. For more information, see "Using the Token Wizard" (page 38).

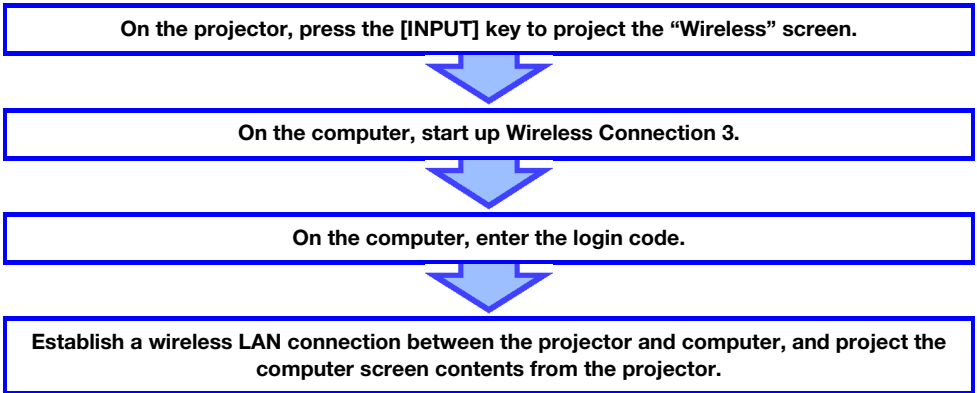
Establishing a Wireless LAN Connection between the Projector and a Computer

This section explains how to establish a wireless LAN connection between the projector and a computer under the projector's initial default "Wireless" settings.

"Wireless" is one of the projector's built-in applications. It makes it possible to establish a wireless LAN connection between the projector and a computer, and project the computer's display contents.

Wireless LAN Connection and Projection Operation Flow

The following shows the operation flow for projecting computer display contents when Wireless is configured with its initial default settings.



Note

Under initial default settings, the projector performs wireless LAN communication using WPA-PSK AES security for comparatively secure wireless data communication. Data sent between the projector and computer is encrypted based on the projector built-in passphrase and login code.

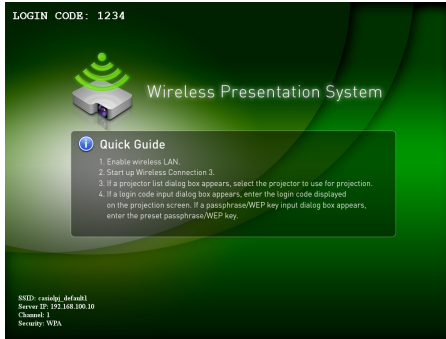
You can change the security system and the passphrase, if you want. Changing the passphrase periodically ensures that unauthorized parties cannot hack into your computer or projector. See "Configuring Security Settings for a Wireless LAN Connection" (page 18) for more information.

About the Projector's Wireless Application

Wireless is one of the projector's built-in applications. It makes it possible to establish a wireless LAN connection between the projector and a computer, and project the computer's display contents.

To perform wireless projection

Press the [INPUT] key and select "Wireless" as the input source. This will enable wireless projection. The Wireless standby screen will be projected if there is no wireless LAN connection between the projector and a computer.



Wireless Standby Screen

The Wireless standby screen displays the information described below.

Display Item	Description
LOGIN CODE	This is a four-digit number that must be input when establishing a wireless LAN connection between the projector and a computer under default Wireless settings. The number is updated to new one whenever the projector is started up.
SSID	Projector's current SSID.
Server IP	Projector's current IP address.
Channel	Projector's current channel number.
Security	Projector's current security setting.


For information about the meaning of SSID, IP address, and other terms used above, see "System Admin Page Settings" (page 36).

Wireless Connection 3

Wireless Connection 3 is control software for a computer that connects to the projector via wireless LAN connection.

To start up Wireless Connection 3

Perform either of the following operations to start up Wireless Connection 3 on the computer.

- Double-click the  icon on your Windows desktop.
- On your computer's Windows Start menu, select [All Programs] - [CASIO] - [Wireless Connection 3].



Important!

If your computer is running Windows Vista or Windows 7, starting up Wireless Connection 3 will cause the "User Account Control" message to appear. When it does, click [Allow].



Note

Using the token wizard to install Wireless Connection 3 on USB memory makes it possible to start up Wireless Connection 3 by using the USB memory. For more information, see "Using the Token Wizard" (page 38).

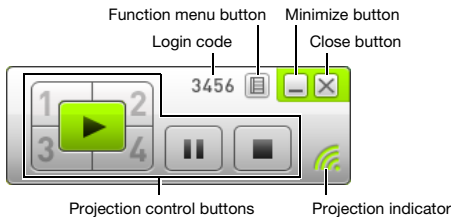
Wireless Connection 3 Windows

The following shows the windows that appear while Wireless Connection 3 is running.

Connection search



Connection successful (connected)



Connection failed



- The close, minimize, and function menu buttons are available on all three windows.

To display Wireless Connection 3 help

On a Wireless Connection 3 window, click the function menu button and then click [Help] on the menu that appears.

To display Wireless Connection 3 version information

On a Wireless Connection 3 window, click the function menu button and then click [About] on the menu that appears.

To close Wireless Connection 3

Perform either of the following operations.

- On a Wireless Connection 3 window, click the function menu button and then click [Exit] on the menu that appears.
- Click the close button in the upper right corner of a Wireless Connection 3 window.

Using a Default SSID to Connect a Computer to the Projector via Wireless LAN

This section explains how to use one of the three default SSIDs (casiolpj_default1, casiolpj_default2, casiolpj_default3) to establish a wireless LAN connection between the projector and a computer.



Note

- The initial default SSID for the projector is casiolpj_default1.
- When using multiple projectors for simultaneous projection in the same area, each one must be assigned a different SSID for identification purposes. Since there are only three default SSIDs, you have up to three projectors with default SSIDs in the same area operating simultaneously. For more information, see “Wireless LAN Connection when Using Multiple Projectors at the Same Time” (page 16).



Important!

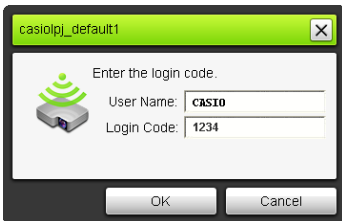
- Note that only computer screen contents can be sent from your computer to the projector over a wireless LAN connection. Audio data cannot be sent.
- If you are running Wireless Connection 3 under Windows Vista or Windows 7, do not perform any of the operations that appear in the “User Account Control” message (such as software installation, new hardware connection, etc.) while there is a wireless connection between the computer and projector.

To use a default SSID to connect a computer to the projector via wireless LAN

1. Turn on the projector and wait until the POWER/STANDBY indicator is lit green.
2. Press the [INPUT] key and select “Wireless” as the input source.
 - This will project the Wireless standby screen.
3. Turn on your computer and start up Windows.
4. On the computer, start up Wireless Connection 3.
 - If your computer is running Windows Vista or Windows 7, starting up Wireless Connection 3 will cause the “User Account Control” message to appear. When it does, click [Allow].
 - The Wireless Connection 3 window will appear with the message “Connecting”.



- If your computer is running Windows Vista or Windows 7 and the “Set Network Location” dialog box appears, click [Cancel] to close the dialog box.
- A dialog box like the one shown below as soon as Wireless Connection 3 finds a projector to connect to.



5. Enter the user name and login code.
 - The user name you enter here will be displayed as the user name on the projection screen. You can enter any name up to 20 characters long.
 - For the login code, enter the four-digit number displayed on the Wireless standby screen.

6. When everything is the way you want, click [OK].

- This establishes a wireless LAN connection between the projector and computer, and causes the computer screen contents to be projected from the projector.
- The following shows the Wireless Connection 3 window that appears on the computer screen. This window is not shown on the image being projected by the projector.



- Now if you want to configure security settings, refer to “Configuring Security Settings for a Wireless LAN Connection” (page 18).
- For information about the Wireless Connection 3 procedure to simultaneously project images from multiple computers and to perform other operations, see “Wireless LAN Connection Operations” (page 25).

7. To close Wireless Connection 3, click the close button in the upper right corner of its window.

- If the message “The projector is still projecting. OK to exit?” appears, click [OK].
- This closes the Wireless Connection 3 window and returns the projected image to the Wireless standby screen.




Note

- To re-establish a wireless LAN connection with projector configured with a default SSID after a previous connection was terminated, perform the above procedure from the beginning. The login number is updated to new one whenever the projector is re-started up. This means you will need to check the login number each time you connect.
- Configuring security settings eliminates the need to enter a login code when establishing a wireless LAN connection between the projector and a computer. Once you enter a character string called a “passphrase” (or WEP key) the first time you connect, you will not need to re-enter it from the next time you connect from the same computer.

Establishing a Wireless LAN Connection from Multiple Computers

After establishing a wireless LAN connection between the projector and one computer, you can establish connections with a second, third, and even fourth computer. The procedure for establishing a connection with the second and subsequent computers is the same as the procedure from step 3 under “To use a default SSID to connect a computer to the projector via wireless LAN” (page 14).

Note, however, that the display contents of subsequently connected computers will not appear automatically if the display contents of the first computer are being projected. To project the screen contents of subsequently connected computers, click the  button on the Wireless Connection 3 window.

For information about the Wireless Connection 3 procedure to simultaneously project images from multiple computers and to perform other operations, see “Wireless LAN Connection Operations” (page 25).

Wireless LAN Connection when Using Multiple Projectors at the Same Time

When using two or more projectors in the same location (same meeting room, etc.), each one is identified by a unique SSID (service set identifier) that lets each computer keep track of which projector it is connected to.

The initial default SSID for the projector is casiolpj_default1. If there are two projectors being used at the same time in the same location, for example, the SSID of the second projector must be changed to casiolpj_default2 or casiolpj_default3, which are the other two available default SSIDs.

To change the default SSID of a projector

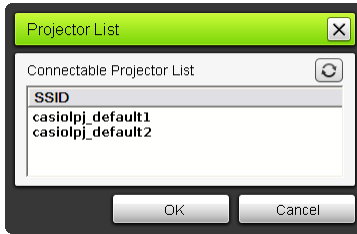
- 1. Press the [INPUT] key and select “Wireless” as the input source.**
 - This will project the Wireless standby screen.
- 2. Press the [MENU] key.**
- 3. Use the [▼] key to move the highlighting to “Wireless” and then press the [ENTER] key.**
- 4. Use the [▼] key to move the highlighting to “Change SSID” and then press the [ENTER] key.**
 - This displays a dialog box like the one shown below for changing the SSID.



- 5. Use the [▼] and [▲] keys to move the highlighting to the SSID you want to select and then press the [ENTER] key.**
- 6. To close the dialog box, press the [ESC] key.**

Wireless Connection when the Computer Finds Multiple Projectors

If the computer finds more than one projector it can connect to in step 4 of the procedure under “To use a default SSID to connect a computer to the projector via wireless LAN” (page 14), a dialog box like the one shown below will appear on the computer screen.



When this happens, check the SSID on the Wireless standby screen being projected by the projector you want to connect to and click the same SSID on the dialog box. Next, click [OK].

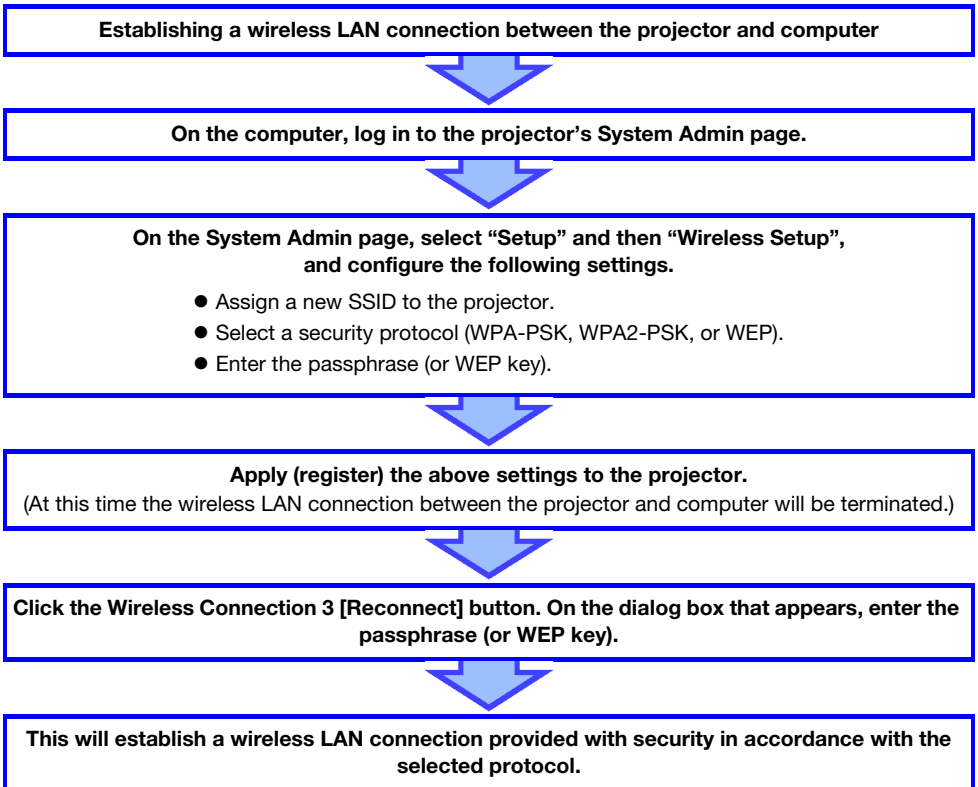
Configuring Security Settings for a Wireless LAN Connection

Configuring security settings prevents unauthorized access to a computer or projector over the wireless LAN. Settings are configured with the projectors System Admin page, which can be accessed with a computer's web browser.

This section explains only the security settings of System Admin page. For details about other System Admin page operations, see "System Admin Page Operations and Settings" (page 32).

Security Setting Flow

To configure security settings, you first need to establish a wireless LAN connection between the projector and computer. For information about establishing a connection between a projector that does not have security settings configured and computer, see "Using a Default SSID to Connect a Computer to the Projector via Wireless LAN" (page 13).

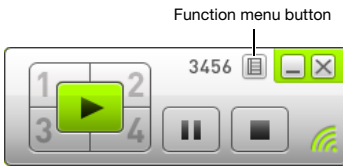


Configuring Security Settings

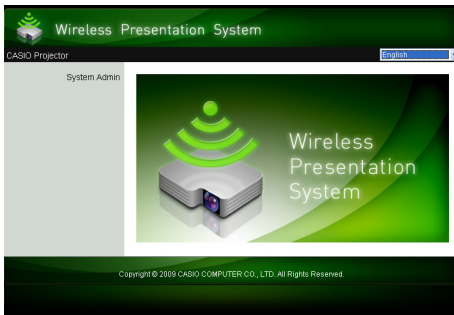
This section explains the procedure for logging in to the projector's System Admin page from a computer and configuring wireless LAN connection security settings.

To log in to the projector's System Admin page

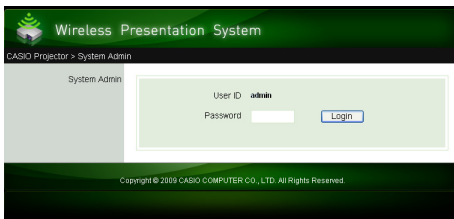
1. Perform the procedure under “To use a default SSID to connect a computer to the projector via wireless LAN” (page 14) up to step 6 to establish a wireless LAN connection between the projector and computer.
2. On a Wireless Connection 3 window, click the function menu button and then click [Admin Screen] on the menu that appears.



- This starts up the computer's web browser and displays the projector's top System Admin page.



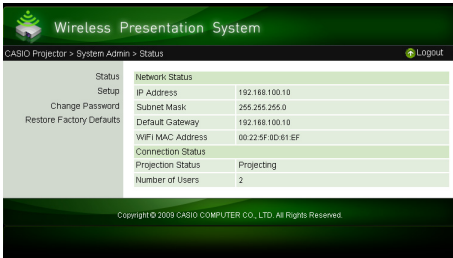
3. Click “System Admin”. On the password input screen that appears, enter the password.



- The initial default password is “admin”.

4. Click the [Login] button.

- This logs in to the System Admin page and displays the Status screen.



Note

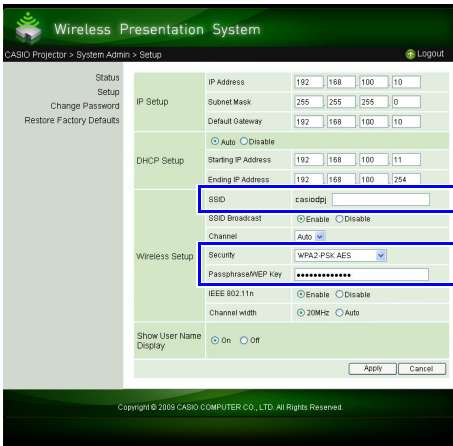
For security reasons, be sure to change the password you use to log in to System Admin page from the default. For more information, see “To change the System Admin login password” (page 32).

To log out of the projector’s System Admin page

Click “Logout” in the upper right corner of the System Admin page. This returns to the top System Admin screen.

To configure security settings

1. Perform the procedure under “To log in to the projector’s System Admin page” (page 19) to log into System Admin.
2. Click “Setup” to display the System Admin page Setup screen.



- Changing only the three settings enclosed in the boxes above are required to configure security settings. Do not change the settings of any other items on the screen at this time.
- For details about the other settings and other System Admin operations, see “System Admin Page Operations and Settings” (page 32).

3. Enter the SSID.

- Enter any characters, up to 24 characters in total, into the “SSID” input box. However, do not use “_default1”, “_default2”, or “_default3”, because these are already used for projector default SSIDs.

4. Select the security protocol.

- Click the [▼] button to the right of the “Security” box and select the desired security protocol from the list that appears. The following explains the meaning of each option in the list.

Security	It means this:
WPA-PSK TKIP	Performs communication encryption using WPA-PSK protocol. TKIP and AES are encryption protocols. WPA (Wi-Fi Protected Access) is a security function for encrypting communication data. WPA uses an automatically generated encryption key that is changed at preset intervals, which provides stronger security than WEP.
WPA-PSK AES	
WPA2-PSK TKIP	Performs communication encryption using WPA2-PSK protocol. TKIP and AES are encryption protocols. WPA2 is a new standard of WPA.
WPA2-PSK AES	
WEP ASCII 64bit	Performs communication encryption using WEP protocol. ASCII 64bit, ASCII 128bit, Hex 64bit, and Hex 128bit are formats for the WEP key character string entered in step 5. WEP (Wired Equivalent Privacy) is a security function that uses a character string called a “WEP key” to encrypt data and protect against unauthorized access to wireless communications.
WEP ASCII 128bit	
WEP Hex 64bit	
WEP Hex 128bit	
Off	Turns off wireless LAN security, so communications are not encrypted.

5. Enter the passphrase (or WEP key).

- The passphrase or WEP key entered in the “Passphrase/WEP Key” text box depends on the security protocol you selected in step 4, as described below.

Security	Input Character String
WPA-PSK TKIP	Enter the WPA-PSK or WPA2-PSK passphrase. Enter at least eight and up to 63 single-byte characters, or a hexadecimal value up to 64 digits long.
WPA-PSK AES	<i>Example:</i>
WPA2-PSK TKIP	MyKey123 (Eight single-byte characters)
WPA2-PSK AES	1111222233334444555566667777888899990000AAAABBBBCCCCDDDEEEFFFFFFF (64-digit hexadecimal value)
WEP ASCII 64bit	Enter five single-byte alphanumeric characters as the WEP key. <i>Example:</i> MyKey
WEP ASCII 128bit	Enter 13 single-byte alphanumeric characters as the WEP key. <i>Example:</i> MyKey12345678
WEP Hex 64bit	Enter a 10-digit hexadecimal value as the WEP key. <i>Example:</i> 11AA22BB33
WEP Hex 128bit	Enter a 26-digit hexadecimal value as the WEP key. <i>Example:</i> 11223344556677889900AABBCC
Off	No input required.

- The character string you input here will be required when you establish a wireless LAN connection between a projector that uses the security settings and a computer. Make sure you do not forget the character string you enter. If you keep a written record of the character string, take care to ensure that it does not become lost or fall into the wrong hands.

6. After configuring the settings you want, click the [Apply] button.

- This applies the new security settings to the projector and terminates the wireless LAN connection between the projector and computer. The projector will project the Wireless standby screen at this time.
- For information about establishing a connection between the projector and computer after configuring security settings, see “Establishing a Wireless LAN Connection after Configuring Security Settings” (page 23).



Important!

Selecting the “Off” security setting in the above procedure will cause data communication over the wireless LAN connection between the projector and computer to be performed without any encryption. It is recommended that you avoid using the “Off” setting except in cases when you are absolutely sure there is no wireless communication security risk.

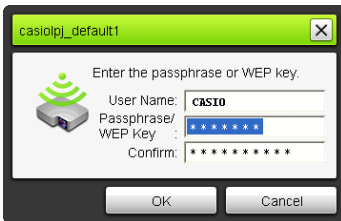
Establishing a Wireless LAN Connection after Configuring Security Settings

The procedures in this section start from the point that a single projector is projecting the Wireless standby screen following configuration of security settings. They also assume that the computer was restarted after settings were configured.

To establish a wireless LAN connection between the projector and a computer after configuring security settings

1. On the computer, start up Wireless Connection 3.

- The Wireless Connection 3 window will appear with the message “Connecting”.
- A dialog box like the one shown below as soon as Wireless Connection 3 finds the projector to connect to.



2. In the “Passphrase/WEP Key” and “Confirm” input boxes, enter the passphrase (or WEP key) registered on the projector.

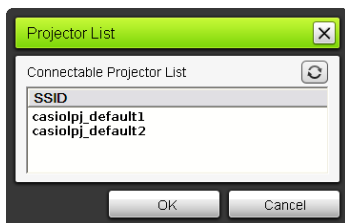
- Enter the character string you input in step 5 under “To configure security settings” (page 21).

3. When everything is the way you want, click [OK].

- This establishes a wireless LAN connection between the projector and computer, and causes the computer screen contents to be projected from the projector.
- For details about subsequent Wireless Connection 3 projection operations and other information, see “Wireless LAN Connection Operations” (page 25).

Note

- When establishing simultaneous wireless LAN connections between a single projector and multiple computers, use the same procedure as above for the second and subsequent computers. For details about the operation required to project from each computer after it is connected, see “Wireless LAN Connection Operations” (page 25).
- When a computer finds multiple projectors that can be connected to, a Projector List dialog box appears after the “Connecting” message.



When this happens, select the SSID of the projector to be connected to by clicking it, and then click [OK].

Establishing a Wireless LAN Connection with a Second and Subsequent Computers after Configuring Security Settings

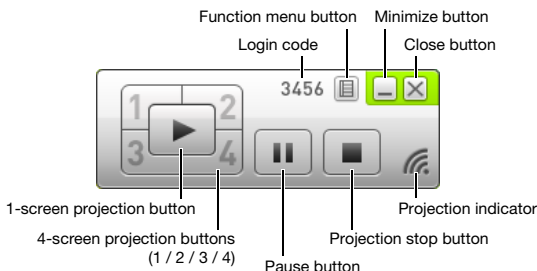
When you perform the procedure under “To establish a wireless LAN connection between the projector and a computer after configuring security settings” (page 23), Wireless Connection 3 remembers the passphrase (or WEP key) you input when establishing a connection. The next time you turn on the connected projector and start up Wireless Connection 3 on the computer, all you need to do is click [OK] on the dialog box that appears to establish a wireless LAN connection between the projector and computer.

Establishing a Wireless LAN Connection while Security is Turned Off

Starting up Wireless Connection 3 on the computer when “Off” is selected for the security setting of the projector in the procedure under “To configure security settings” (page 21) causes the “Connecting” message to appear, establishes a wireless LAN connection, and then starts projecting the computer’s display contents.

Wireless LAN Connection Operations

This section explains operations you can perform after a wireless LAN connection is established between the projector and a computer. Most of these operations are performed using Wireless Connection 3.



Wireless Connection 3 Window

Image Projection Operations

Wireless provides two different projection options: “1-screen Projection” for projection of a full-screen image of a single computer screen, and “4-screen Projection”, which divides the projection screen into four parts for simultaneous projection of images from four computer screens.



1-screen Projection



4-screen Projection





Note

The aspect ratio during wireless projection is always “Normal”, which maintains the aspect ratio of the input signal. This setting cannot be changed.




Starting and Stopping Projection from a Computer Connected via Wireless LAN Connection

Starting 1-screen Projection

On the computer from which you want to start 1-screen projection, click the  button on the Wireless Connection 3 window. The button will change to  and 1-screen projection will start from the computer.


Performing this operation while projection is being performed from another computer will cancel the current projection and switch to projection from the computer where the operation was performed. At this time the wireless LAN connection is maintained between the projector and the computer whose projection was cancelled.


Pausing 1-screen Projection

On the computer from which you want to pause 1-screen projection, click the  button on the Wireless Connection 3 window. This pauses the image that was being projected when you clicked the  button, and the button will change to .




To resume projection, click the  button again.

Stopping 1-screen Projection

On the computer from which you want to stop 1-screen projection, click the  button on the Wireless Connection 3 window. This stops 1-screen projection from the computer and projects the Wireless standby screen.


At this time the wireless LAN connection is maintained between the projector and the computer whose projection was stopped, so the  button can be clicked to restart 1-screen projection.

To establish wireless LAN connections between the projector and multiple computers, and alternate between 1-screen projections

- 1. Establish a wireless LAN connection between the projector and the first computer.**
 - This starts 1-screen projection from the first computer.
- 2. Establish wireless LAN connections between the same projector and the other computers.**
 - Even as you connect to each computer, the 1-screen projection from the first computer is maintained.
- 3. On the second or one of the other subsequent computers, click the  button on the Wireless Connection 3 window.**
 - This will interrupt 1-screen projection from the first computer and switch to 1-screen projection from the computer whose  button was clicked.
 - Next you can click the  button on the Wireless Connection 3 window of any of the other connected computers to switch to 1-screen projection from that computer.

To project the display contents of four computers simultaneously (4-screen projection)

1. Establish a wireless LAN connection between the projector and the first computer, and then click the button.

- This will cause the display contents of the first computer to appear in the upper left corner of the 4-screen projection. The button will change to  to indicate the projection is in progress in the upper left corner of the screen.

2. Establish a wireless LAN connection between the projector and the second computer, and then click the button.






- This will cause the display contents of the second computer to appear in the upper right corner of the 4-screen projection.

3. Establish wireless LAN connections with the third and fourth computers and then click the and buttons.




- The display contents of the third computer will appear in the lower left corner, and the display contents of the fourth computer will appear in the lower right corner of the 4-screen projection.



Note

- Simultaneous wireless LAN connections are supported for up to 32 computers and a single projector. Simultaneous projection of screen images is supported for up to four computers connected via wireless LAN.
- While 4-screen projection is being performed, clicking the , ,  or  button on a computer that is connected to the projector via wireless LAN will start projection from that computer to the 4-screen projection. The location of the computer's projection image depends on the button that is clicked. If there already is another computer projecting in the location that corresponds to the button that is pressed, the current projection is cancelled. However the wireless LAN connection is maintained between the computer whose projection was cancelled and the projector.
- Clicking the  button during 4-screen projection on a computer that is connected to the projector via wireless LAN will switch to 1-screen projection from that computer. At this time the wireless LAN connections are maintained between the projector and the computers whose projections are cancelled.

Pausing and Stopping Projection from a Computer during 4-screen Projection

- Clicking the  button on any of the computers that are projecting during 4-screen projection pauses the projection image from that computer only. The projection images from the other computers are not affected.
- Clicking the  button on any of the computers that are projecting during 4-screen projection stops projection image from that computer only. The projection images from the other computers are maintained.
- When there is only one computer projecting to a 4-screen projection, clicking the  button will stop 4-screen projection and display the Wireless standby screen.

Displaying the User Name on the Projection Screen

Pressing the projector's remote controller's [Δ] key displays the applicable computer user name on the projection screen. In the case of 4-screen projection, the name is displayed in the area where the computer screen image is being projected. The user name remains displayed for about five seconds after the key is pressed.

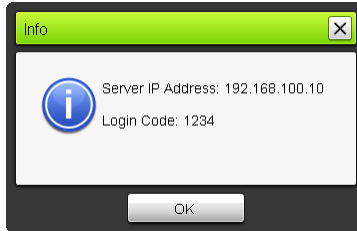
Other Operations

Re-establishing a Wireless LAN Connection

After terminating a wireless LAN connection between the projector and a computer, you can re-establish the connection with the same projector or you can connect with another projector. On a Wireless Connection 3 window, click the function menu button and then click [Server Search] on the menu that appears. The computer will terminate the current wireless LAN connection and start searching for a projector it can connect to.

Projector Information

On a Wireless Connection 3 window, click the function menu button and then click [Info] on the menu that appears. This will display a dialog box with information about the currently connected projector.



Selecting display speed priority or resolution priority for projection

When projecting over a wireless LAN connection, you can configure the projector to give priority either to display speed or to resolution.

To select display speed priority or resolution priority for projection

1. On a Wireless Connection 3 window, click the function menu button and then click [Projection Setting] on the menu that appears.

2. On the sub-menu that appears, click “High-speed” or “High-resolution”.

High-speed : This setting gives more priority to display speed (frame rate) than to resolution. Image resolution (gradations) with this setting is 16-bit color.

High-resolution: This setting gives more priority to resolution than display speed. Image resolution (gradations) with this setting is 32-bit color.

Terminating a Wireless LAN Connection

Use Wireless Connection 3 to terminate a wireless LAN connection between the projector and a computer. Click the close button in the upper right corner of the Wireless Connection 3 window.

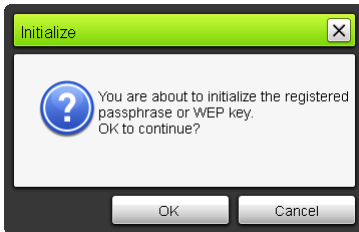
Initializing Wireless Connection 3

Performing the following procedure returns the passphrase/WEP key that is currently recorded on the computer running Wireless Connection 3 to its initial default.

To initialize Wireless Connection 3

- 1. On a Wireless Connection 3 window, click the function menu button and then click [Initialize] on the menu that appears.**

- This will cause the confirmation dialog box shown below to appear.



- 2. Click [OK] to initialize or [Cancel] to cancel initialization.**

Configuring Wireless Settings

You can use the projector's setup menu to configure the Wireless function settings described below.

Setting Name	Description
Change SSID	Switches the projector's SSID setting from one of the three default SSIDs to another.
Initialize Wireless Setup	Returns all Wireless settings to their initial factory defaults.



Note

More advanced projector wireless LAN connection settings (connection setup, security settings, etc.) can be configured using the System Admin page, which can be accessed from the computer currently connected to the projector via wireless LAN. For more information, see "System Admin Page Operations and Settings" (page 32).

To switch between Default SSIDs



Important!

- This procedure can be used only to change from one default SSID to another default SSID. If the current SSID or the SSID being changed to is not one of the three default SSIDs, access the projector's System Admin page from a computer to change.
- For information about accessing System Admin page, see "System Admin Page Operations and Settings" (page 32).

- 1. While the Wireless screen is being projected, press the [MENU] key.**
- 2. Use the [▼] key to move the highlighting to "Wireless" and then press the [ENTER] key.**
- 3. Use the [▼] key to move the highlighting to "Change SSID" and then press the [ENTER] key.**
 - This displays a dialog box like the one shown below for changing the SSID.



- 4. Use the [▼] and [▲] keys to move the highlighting to the SSID you want to select and then press the [ENTER] key.**
- 5. To close the dialog box, press the [ESC] key.**

To initialize the Wireless setup

- 1. While the Wireless screen is being projected, press the [MENU] key.**
- 2. Use the [▼] key to move the highlighting to “Wireless” and then press the [ENTER] key.**
- 3. Use the [▼] key to move the highlighting to “Initialize Wireless Setup” and then press the [ENTER] key.**
 - This will cause a “Initialize the Wireless setup?” confirmation dialog box to appear.
- 4. Press the [▲] key to move the highlighting to “Yes” and then press the [ENTER] key.**
 - This will perform initialization, which will return all Wireless settings, including settings configured with the projector’s System Admin page, to their initial factory defaults.
 - For information about the initial defaults of the System Admin page settings, see “System Admin Page Settings” (page 36).

System Admin Page Operations and Settings

While the projector is connected to a computer via wireless LAN, you can use the computer's web browser to access the projector's System Admin page. The System Admin page can be used to configure the projector's wireless LAN connection settings from your computer.

System Admin Page Operations



Important!

To perform the operations presented here, you must be logged in to the projector's System Admin page from your computer. For information about logging in, see the procedure starting from step 2 under "To log in to the projector's System Admin page" (page 19).

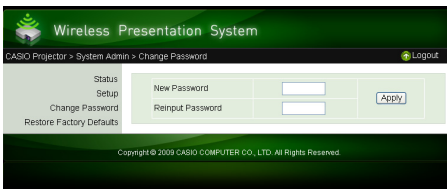
Configuring Settings

You can configure the following settings from the System Admin page.

- Login password
- Network settings (IP setting, DHCP setting)
- Wireless LAN connection settings (mainly security)

To change the System Admin login password

- 1. Establish a wireless LAN connection between the projector and computer, and log in to the projector's System Admin screen from the projector.**
- 2. Click "Change Password".**
 - This displays a screen for changing the password.



3. Enter the new password twice into the “New Password” and the “Reinput Password” input boxes.

- You can enter up to eight characters as the password.
- Note that you will need the password you enter here the next time you log in to the System Admin page. Make sure you do not forget the password string you enter. If you keep a written record of the password, take care to ensure that it does not become lost or fall into the wrong hands.
- If the characters you input into the two text boxes are not identical, a dialog box like the one shown below will appear when you click [Apply] in the next step of this procedure. If this happens, click [OK] and re-input the password correctly into both text boxes.



4. When everything is the way you want, click [OK].

- This registers the new password. You will need to enter the new password the next time you log in to the System Admin page.

5. To log out of the System Admin page, click “Logout”.

To configure projector network settings and wireless LAN connection settings

1. Establish a wireless LAN connection between the projector and computer, and log in to the projector's System Admin screen from the projector.
2. Click "Setup" to display the System Admin page Setup screen.

Wireless Presentation System

CASIO Projector > System Admin > Setup Logout

Status Setup Change Password Restore Factory Defaults	IP Setup	IP Address	192	168	100	10
		Subnet Mask	255	255	255	0
		Default Gateway	192	168	100	10
		<input type="radio"/> Auto <input type="radio"/> Disable				
	DHCP Setup	Starting IP Address	192	168	100	11
		Ending IP Address	192	168	100	254
		SSID	casiodj			
		SSID Broadcast	<input type="radio"/> Enable <input type="radio"/> Disable			
		Channel	Auto			
	Wireless Setup	Security	WPA2-PSK AES			
		Passphrase/WEK Key	*****			
		IEEE 802.11n	<input type="radio"/> Enable <input type="radio"/> Disable			
		Channel width	<input type="radio"/> 20MHz <input type="radio"/> Auto			
	Show User Name Display	<input type="radio"/> On <input type="radio"/> Off				
		<input type="button" value="Apply"/> <input type="button" value="Cancel"/>				

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3. Change a setting by entering a value or selecting an option.
 - For information about configuring wireless LAN security settings (SSID, security, passphrase/ WEP key), see "To configure security settings" (page 21).
 - For details about the meaning, settings range, and other information about the settings on the "Setup" screen, see "System Admin Page Settings" (page 36).
4. After everything is the way you want, click the [Apply] button.
 - This will apply the new settings.
 - If you changed the SSID, the connection between the projector and computer will be terminated. If necessary, reconnect to the projector from the computer.

Initializing All System Admin Page Settings

This operation returns all of the settings on the System Admin page to their initial factory defaults. For information about default settings, see “System Admin Page Settings” (page 36).

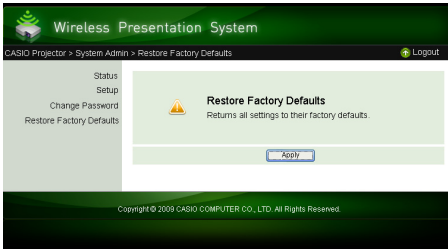


Note

The user name and passphrase/WEP key information recorded on the computer by Wireless Connection 3 are not initialized by this procedure.

To initialize all System Admin page settings

- 1. Establish a wireless LAN connection between the projector and computer, and log in to the projector’s System Admin screen from the projector.**
- 2. Click “Restore Factory Defaults”.**
 - This displays a screen like the one shown below.



- 3. To return settings to their initial factory defaults, click [Apply].**
 - This will initialize the settings and terminate the wireless LAN connection between the projector and computer. The projector will project the Wireless standby screen at this time.

System Admin Page Settings

System Admin > Setup Settings

Setting Name		Description
IP Setup	IP Address	Specifies the projector IP address. Initial Default: 192.168.100.10
	Subnet Mask	Specifies a subnet mask value, which specifies the IP address range of the subnet to which the projector belongs. Initial Default: 255.255.255.0
	Default Gateway	Specifies the IP address of the device used as a gateway for access from a computer outside of the network to which the projector belongs. Initial Default: 192.168.100.10
DHCP Setup	Auto/Disable	Specifies whether an IP address should be assigned automatically to a computer connected to the projector via wireless LAN. "Auto" causes an IP address to be assigned automatically, while "Disable" turns off auto assignment. Initial Default: Auto
	Starting IP Address	Specifies the start point of the range of IP addresses that are assigned automatically to computers. This setting is available only while "Auto" is selected for the DHCP Auto/Disable setting. Initial Default: 192.168.100.11
	Ending IP Address	Specifies the end point of the range of IP addresses that are assigned automatically to computers. This setting is available only while "Auto" is selected for the DHCP Auto/Disable setting. Initial Default: 192.168.100.254
Wireless Setup	SSID	Wireless network ID name. This is normally referred to as the SSID, ESS-ID, or network name. Up to 24 single-byte alphanumeric characters can be entered. Initial Default: casiolpj_default1 (casiolpj_default2 and casiolpj_default3 also are built into the projector.)
	SSID Broadcast	Specifies whether SSID information broadcasting is enabled or disabled. Initial Default: Enable
	Channel	Specifies the channel used for wireless LAN communication. Selecting "Auto" causes auto selection of a channel that is appropriate for the current communication environment. To specify a channel number, select channel number 1 through 11 from the list that appears when you click the [▼] button to the right of the channel number. Initial Default: Auto
	Security	Specifies the security protocol. For more information, see "To configure security settings" (page 21). Initial Default: WPA-PSK AES
	Passphrase/WEP Key	Specifies the passphrase or WEP key in accordance with the security protocol selected with "Security" above. For more information, see "To configure security settings" (page 21).
	IEEE 802.11n	Specifies whether wireless LAN standard IEEE 802.11n is enabled. Initial Default: Enable
	Channel Width	Specifies either "20MHz" or "Auto" for the IEEE 802.11n channel width. Initial Default: 20MHz
Show User Name Display	Specifies whether the computer's user name should appear on the projection screen when projection starts from a computer connected to the projector via wireless LAN. Initial Default: On (User name displayed.)	

System Admin > Change Password

Setting Name	Description
New Password Reinput password	For input of the new password when logging in to the System Admin page. Initial Default: admin

Using the Token Wizard

You can use the Wireless Connection 3 token wizard to copy Wireless Connection 3 to USB memory. After you do that, you can run Wireless Connection 3 on a computer that does not have the program installed simply by plugging the USB memory (called a “USB Token”) into the computer’s USB port. Using USB tokens is recommended when connecting to the projector from multiple computers.

Installing Wireless Connection 3 on USB Memory

USB memory with a capacity of at least 4MB is required for installation. Use of newly formatted USB memory that does not contain any other data is recommended.




Important!

Using the procedure below to install Wireless Connection 3 on USB memory creates a file named “autorun.inf” (which is a Wireless Connection 3 auto run file) in the USB memory root directory. If the USB memory root directory already contains a file with the same name, the existing file will be renamed by adding “.bak” or a three-digit number (.001, .002., etc.) to the end of its file name.

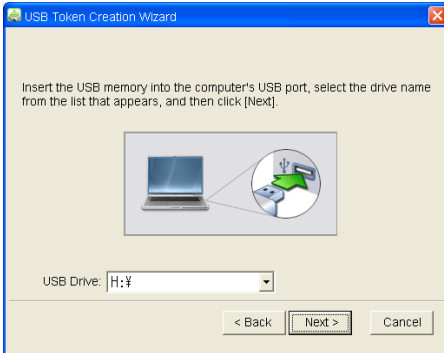
To install Wireless Connection 3 on USB memory



Note

Using the following procedure to install Wireless Connection 3 on USB memory will change the name of the USB memory to “USB Token” and also change its icon to .

1. On a **Wireless Connection 3** window, click the function menu button and then click **[Token Wizard]** on the menu that appears.
 - This displays the token wizard.
2. Click **[Next>]**.
 - This displays a USB drive selection screen.



- If there is no USB memory connected to the computer, the message “USB memory could not be detected.” will appear. If this happens, connect the USB memory and wait until its USB memory drive name appears in the “USB Drive” box.
3. If there are multiple USB memories connected to the computer, click the **[▼]** button to the right of the “USB Drive” box and select the name of the drive where you want to install **Wireless Connection 3**.
 4. Click the **[Next>]** button.
 - This installs **Wireless Connection 3** on the specified USB memory. The message “Wizard ended normally.” appears on the display after installation is complete.
 5. Click **[Exit]** to close the token wizard screen.

To use a USB token to connect a computer to the projector via wireless LAN

Connect the USB token to the computer’s USB port and then double click the **Wireless Connection 3** icon in the token. After **Wireless Connection 3** starts up, you can perform the same operations you do when **Wireless Connection 3** is installed on a computer.



Note

- The user name and passphrase (or WEP key) is not remembered when you start up **Wireless Connection 3** from a USB token.
- You cannot use the token wizard when you start up **Wireless Connection 3** from a USB token.

Installing and Removing the Wireless Adapter

The projectors come with wireless adapters YW-3 (either built-in or supplied separately). You can install and remove the wireless adapter as required.



Caution

Keep the wireless adapter that comes with the projector out of the reach of small children. Accidental swallowing of the product can interfere with proper breathing and create a life-threatening situation.

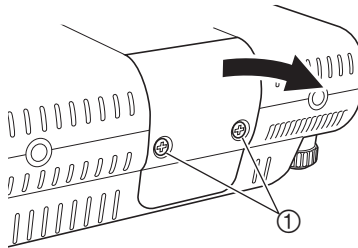


Important!

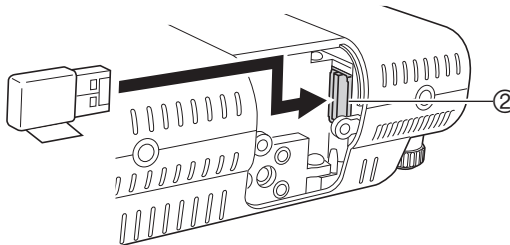
- Keep the wireless adapter in a safe place when it is not installed on the projector.
- Never try to use the wireless adapter that comes with the projector with any other type of device.
- Never try to connect any other type of device to the special YW-3 port located under the wireless adapter cover of the projector. Doing so can result in malfunction and other trouble with the projector and/or connected device.

To install the wireless adapter on the projector

1. Turn off the projector and unplug its power cord from the power outlet.
2. Loosen the two screws ① that secure the wireless adapter cover, and then pull the top of the cover towards you to remove it.



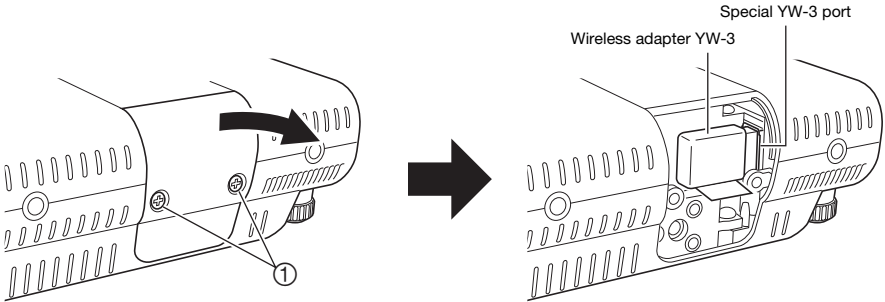
3. Plug the wireless adapter into the special YW-3 port ② inside the cover.



4. Replace the cover and secure it with the two screws.

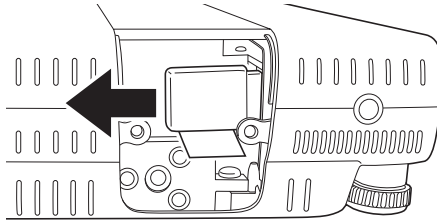
To remove the wireless adapter from the projector

1. Turn off the projector and unplug its power cord from the power outlet.
2. Loosen the two screws ① that secure the wireless adapter cover, and then pull the top of the cover towards you to remove it.



3. Remove the wireless adapter.

- Grasp the wireless adapter and move the adapter left as you pull it out.




4. Replace the cover and secure it with the two screws.

Wireless LAN Connection Troubleshooting

Check the following points whenever you are having problems with a wireless LAN connection.

Wireless LAN Connection between the Projector and a Computer


Problem	Cause and Required Action
[Reconnect] remains on the Wireless Connection 3 window and the computer won't connect to the projector.	<ul style="list-style-type: none"> ● If any other wireless LAN utility besides Wireless Connection 3 is running on the computer, close it. ● If the projector and computer are far away from each other or if there is a wall or some other physical impediment between them, move them closer and/or remove the impediment. ● If a nearby microwave oven, Bluetooth device, or other device is interfering with the wireless LAN signal, relocate the interfering device. ● If the projector is off, turn it on. ● If the projector does not have its wireless adapter installed, install it (page 40). ● If the computer's wireless LAN function is disabled, enable it.
The wireless LAN connection between the projector and computer keeps dropping.	<ul style="list-style-type: none"> ● If any other wireless LAN utility besides Wireless Connection 3 is running on the computer, close it. ● If the projector and computer are far away from each other or if there is a wall or some other physical impediment between them, move them closer and/or remove the impediment. ● If a nearby microwave oven, Bluetooth device, or other device is interfering with the wireless LAN signal, relocate the interfering device.

Problem	Cause and Required Action	Refer to:
I can establish a wireless LAN connection between the projector and computer, but the computer screen contents won't project from the projector.	<ul style="list-style-type: none"> ● On the projector, press the [INPUT] key and make sure that "Wireless" is selected as the input source. ● If computer display contents won't project while "Wireless" is selected as the input source, click the  button on the computer's Wireless Connection 3 window. ● If the projection image has been frozen or cut off by pressing the [FREEZE] or [BLANK] key on the projector, press the [ESC] key to cancel the freeze/blank operation. 	<p>"To perform wireless projection" (page 11)</p> <p>"Starting and Stopping Projection from a Computer Connected via Wireless LAN Connection" (page 26)</p> <p>User's Guide (UsersGuide_English.pdf)</p>
Projection image switching is slow.	<ul style="list-style-type: none"> ● Check what is selected for the projector's "Projection Setting" item. If "High-resolution" is selected, change the setting to "High-speed". ● If your computer is running Windows Vista or Windows 7, disable Windows Aero™. 	<p>"To select display speed priority or resolution priority for projection" (page 28)</p>
The user name does not appear when I start projecting from a computer.	<ul style="list-style-type: none"> ● Make sure that "On" is selected for the "Show User Name Display" item of the Wireless setup. 	<p>"To switch between Default SSIDs" (page 30)</p>
How can I check the projector's SSID and login code?	<ul style="list-style-type: none"> ● Check the Wireless standby screen. 	<p>"To perform wireless projection" (page 11)</p>

Simultaneous Wireless LAN Connections with Multiple Projectors

Problem	Cause and Required Action	Refer to:
Wireless Connection 3 is running on my computer, but the Projector List dialog box won't display.	<ul style="list-style-type: none"> ● Make sure all of the projectors are turned on. A projector can be recognized by a computer even if "Wireless" is not selected as the projector's input source. ● Make sure that all of the projectors have wireless adapters installed (page 40). ● If the projectors and computer are far away from each other or if there is wall or some other physical impediment between them, move them closer and/or remove the impediment. ● If a nearby microwave oven, Bluetooth device, or other device is interfering with the wireless LAN signal, relocate the interfering device. 	–
The SSID of the projector I want to connect to is not included on the Projector List dialog box.	<ul style="list-style-type: none"> ● Check the "SSID Broadcast" setting of the projector. If "Disable" is selected, change the setting to "Enable". ● If the projector is off, turn it on. 	"To configure projector network settings and wireless LAN connection settings" (page 34)
Even though entering the login code displayed on the Wireless standby screen, I get a "Could not connect to projector. Connection has been terminated." error.	<ul style="list-style-type: none"> ● If there are two or three projectors, make sure that each one has a different SSID: casiolpj_default1, casiolpj_default2, casiolpj_default3. ● If there are more than three projectors, assign each one a unique SSID. In this case you can use the default SSIDs for three of the projectors and configure security settings for the remainder of the projectors to assign original SSIDs. 	"To change the default SSID of a projector" (page 16) "To configure security settings" (page 21)

System Admin Page

Problem	Cause and Required Action	Refer to:
The System Admin page does not appear when I try to access it from Wireless Connection 3.	The browser you are using may be configured to use a proxy server. Since a proxy server configuration can make it impossible to access the System Admin page, you should change your browser configuration. For information about proxy server settings, see the help and other user documentation for your browser.	–
The System Admin front page does not appear when I specify the IP address of the projector in my web browser.	<ul style="list-style-type: none"> ● If the wireless LAN connection between the projector and computer is terminated, re-connect. ● The browser you are using may be configured to use a proxy server. Disable the proxy server configuration. 	“Using a Default SSID to Connect a Computer to the Projector via Wireless LAN” (page 13), “Establishing a Wireless LAN Connection after Configuring Security Settings” (page 23)
I forgot the login password I specified on the System Admin page.	<p>Perform the required operation on the projector to initialize the Wireless setup.</p> <p> Important! _____ Initializing the Wireless setup returns all Wireless settings, including security settings and all other System Admin page settings, to their initial factory defaults.</p>	“To initialize the Wireless setup” (page 31)

Performing Wireless Operations from a Computer


Problem	Cause and Required Action	Refer to:
I can't change the SSID by using the projector's Wireless setup menu.	After you use the System Admin page to assign a new SSID to a projector, you no longer will be able to change the SSID using a projector remote controller key operation. To change the SSID, you will need to log in to the System Admin page again.	“To configure projector network settings and wireless LAN connection settings” (page 34)

Error Messages

Wireless Connection 3 Error Messages

Error Message	Cause and Required Action
Could not connect to projector. Connection has been terminated.	<ul style="list-style-type: none">● The wrong login code was entered when establishing a wireless LAN connection with a projector configured with default settings. Clicking the [OK] button on the error message will return to the login code input dialog box, so enter the correct login code. If you do not know the login code, check the projector's Wireless standby screen (page 11).● The wrong passphrase (or WEP key) was entered when establishing a wireless LAN connection with a projector configured with security settings. Clicking the [OK] button on the error message will return to the passphrase/WEP key input dialog box, so enter the correct passphrase or WEP key. If you forgot the passphrase or WEP key that is assigned to the projector, reconfigure security settings. For more information, see "To configure security settings" (page 21).

System Admin Page Error Messages

Error Message	Cause and Required Action
Enter the correct password.	<p>The wrong password was entered when logging in to the projector's System Admin page from a computer. Clicking the [OK] button on the error message will return to the password input screen, so enter the correct password. The default password, if you have not changed it yet, is "admin".</p> <p>If you forgot the password you assigned using the System Admin page, perform the procedure under "To initialize the Wireless setup" (page 31).</p> <p> Important! _____ Initializing the Wireless setup returns all Wireless settings, including security settings and all other System Admin page settings, to their initial factory defaults.</p>
Enter a different SSID to change wireless settings.	<p>You cannot use the "Setup" screen of the System Admin page to change the setup of the three default SSIDs (casioipj_default1, casioipj_default2, casioipj_default3). If you want to use different settings, you need to enter a different (non-default) SSID into the "SSID" text box before you click [Apply].</p>



Note

For information about error messages that appear on the projection screen, see the User's Guide (UsersGuide_English.pdf).

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