Connecting to a Computer

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Configure camera settings for a wireless computer connection, and then transfer images to the computer wirelessly using the included software CameraWindow as follows.

- When connected to a computer, the camera is used to establish the connection and then the computer (included software CameraWindow) is used to transfer images.
- For details on the included software, see the *Software Guide*.

Preparing to Register a Computer

Prepare to register a computer.

Checking the Computer and Wireless LAN Setup

The camera can connect to the following computers via wireless LAN.

Windows

- Windows 7 Service Pack 1

Macintosh

- Mac OS X 10.6.8 or later

- Windows 7 Starter and Home Basic editions are not supported.
- Windows 7 N (European version) and KN (South Korean version) require a separate download and install of Windows Media Feature Pack.
  For further details, see the following websites.
  http://go.microsoft.com/fwlink/?LinkId=159730

To use wireless LAN, an access point base unit (wireless LAN router, etc.) connected to a computer is required.
Additionally, the included software, CameraWindow must be installed.

- Be sure to use a wireless LAN base unit that conforms to standards listed on "Specifications" (📖333).
- A router is a device that creates a network (LAN) structure for connecting multiple computers. A router that contains an internal wireless function is called a wireless (LAN) router.
- This guide will refer to all wireless routers and base stations as "access points".
- When unsure of your computer setup, refer to the user manual provided with the computer.

Checking Your Wireless LAN Settings

If you are already using a wireless LAN, check the following items and mark each one on the check sheet.

- If system administrator status is needed to adjust network settings, contact the system administrator for details.
- These settings are very important for network security. Exercise adequate caution when changing these settings.
- For instructions on how to check settings, refer to the user guide included with your access point.

Check sheet

Network name (SSID/ESSID) The SSID or ESSID for the access point you use.	
Network certificate/data encryption (encryption method/encryption mode) The method for encrypting data during wireless transmission.	○ None ○ WEP (open system authentication) ○ WPA-PSK (TKIP) ○ WPA-PSK (AES) ○ WPA2-PSK (TKIP) ○ WPA2-PSK (AES)
Encryption key (network key) The key used when encrypting data during wireless transmission.	
Key index (sent key) Network certificate/data encryption is the set key when using WEP.	○ 1

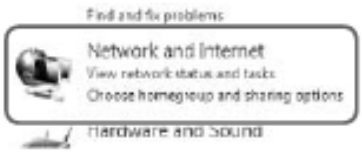
- If you use MAC address filtering on your wireless LAN, be sure to enter the camera's MAC address to your access point. You can check the MAC address for your camera by choosing the [🔧] tab, [Wireless LAN Settings], and then [Check MAC Address].
- The different types of security are as follows.
  - None: Encryption is not used when connecting to an access point.
  - WEP: A standard of encryption supported by most wireless LAN devices.
  - WPA-PSK (TKIP): An improved WEP standard that uses TKIP encryption.
  - WPA-PSK (AES): An improved WEP standard that uses AES encryption.
  - WPA2-PSK (TKIP): An improved WPA standard that uses TKIP encryption.
  - WPA2-PSK (AES): An improved WPA standard that uses AES encryption.
- AES uses higher security than TKIP.
- There is no difference in security levels between WPA and WPA2.

Computer Settings for Connecting to a Wireless LAN (Windows only)

When using a Windows computer, wireless LAN connection settings on the computer are necessary to connect to a camera wirelessly.
Confirm that your computer is connected to a wireless LAN, and then follow each of the next steps.

Turning On Media Streaming and Network Discovery

If you activate media streaming, the camera will be able to detect and search your computer when they are connected wirelessly.
If you activate network discovery, your computer will be able to detect and search the camera.



1 Open the Control Panel window.

- Click [Control Panel] from the Start menu.

2 Choose [Network and Internet].

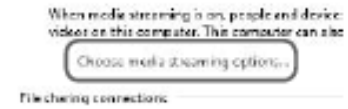
- Click [Network and Internet].

3 Choose [Network and Sharing Center].

- Click [Network and Sharing Center].

4 Choose [Change advanced sharing settings].

- Click [Change advanced sharing settings].



5 Choose [Choose media streaming options...].

- Click [Choose media streaming options...] for the current profile.

6 Turn on media streaming.

- Click [Turn on media streaming].

7 Choose [OK].

- Click [OK].

8 Turn on network discovery.

- Click [Turn on network discovery] for the current profile.

9 Save the changes.

- Click [Save changes].

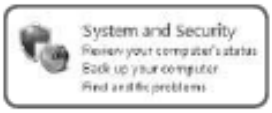
10 Close the Control Panel window.

Enabling ICMP Inbound Echo Requests and UPnP Services

Enabling ICMP (Internet Control Message Protocol) will allow you to check the network connection status.
Enabling UPnP (Universal Plug & Play) will allow the network to automatically recognize network devices.

1 Open the Control Panel window.

- Click [Control Panel] from the Start menu.

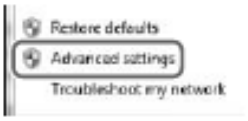


2 Choose [System and Security].

- Click [System and Security].

3 Choose [Windows Firewall].

- Click [Windows Firewall].

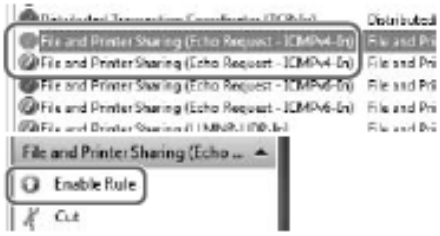


4 Choose [Advanced settings].

- Click [Advanced settings].

5 Choose [Inbound Rules].

- Click [Inbound Rules].



6 Enable ICMP inbound echo requests.

- Choose [File and Printer Sharing] items ending in [ICMPv4], and then click [Enable Rule] on the right side of the window.

7 Turn on UPnP services.

- Choose [Wireless Portable Devices (UPnP-In)], and then click [Enable Rule] on the right side of the window.

8 Close the [Windows Firewall with Advanced Security] window.

9 Close the Control Panel window.

- If [Disable Rule] is displayed in steps 6 – 7, the item is already enabled, and can be left as is.

Adding a Computer

Add a computer to your list of devices to connect to via wireless LAN.

- Be sure to also read the user guide included with your access point.

1 Access the wireless LAN screen.

- Press the <▲> button.

2 Choose a computer.

- Press the <▲><▼><◀><▶> buttons or turn the <◉> dial to choose [💻], and then press the <(FUNC. SET)> button.

3 Choose [Add a Device].

- Press the <▲><▼> buttons or turn the <◉> dial to choose [Add a Device], and then press the <(FUNC SET)> button.
- A list of detected access points will be displayed in the [Access Point Connect] screen.
- Proceed to either "Connecting to a WPS Supported Access Point" (📖64) or "Connecting to Access Points in the List" (📖67).
- To manually choose and connect to an access point, see the ✎ supplemental explanation column (📖68) in "Connecting to Access Points in the List".

✎
- Once a computer is added, the computer name will be displayed on the screen in step 3. To connect to a computer again, simply choose the computer name from the list.

- You can also configure this setting through touch-screen operations (📖91).
- When a connection destination is set using the Touch Actions setting (📖248), you can automatically access the function to connect to the last connected destination from the next time by just dragging on the screen without needing to perform the connection operation.