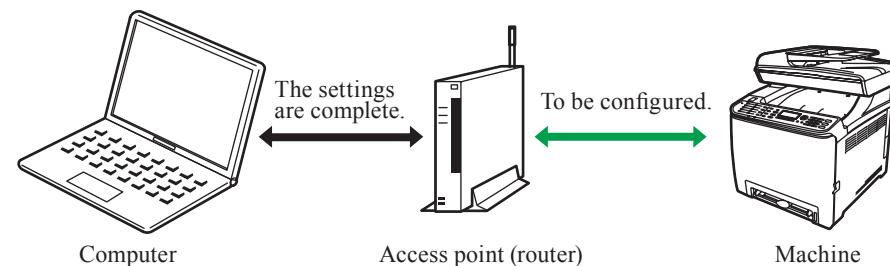


This manual explains how to establish a wireless LAN connection in infrastructure mode (for connection through an access point (router)).

❖ Infrastructure mode

This section explains how to connect to the network via a wireless LAN access point (router) as shown below.



Note

- For details about configuring ad hoc mode, see "Wireless LAN Setup" in the Operating Instructions.

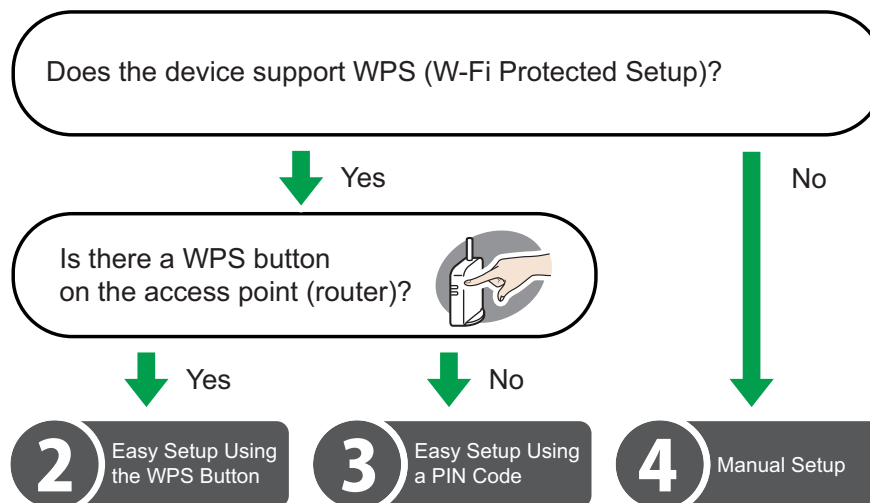
1 Check Your Wireless Network Environment

(1) Selecting the Configuration Method

Important

- Make sure your access point (router) is connected to the network.

The configuration method depends on the access point (router) being used. "WPS" is a function for automatically configuring the wireless LAN settings.



- About the WPS button and connection using a PIN code
 - Depending on the access point (router) used, setup may be possible using either the WPS button, a PIN code, or both methods.
 - To establish a connection using a PIN code, the configuration screen of the access point (router) must be displayed on the computer.
- About WPS connection security
 - The encryption method for the devices is automatically configured by WPS. Security settings depend on the connection environment. Accordingly, it cannot be assumed that the configured security setting is the most secure.

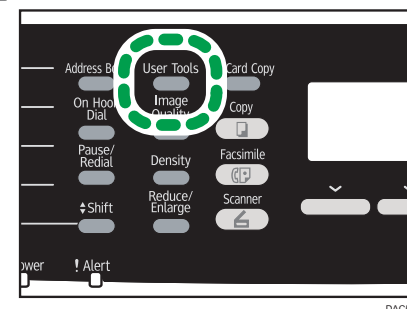
❖ Glossary of Wireless LAN Terms

- Wireless LAN Access Point (Router)**
This device routes data between wireless LAN-capable devices and the Internet.
- Infrastructure Mode**
Select this to communicate via an access point (router).
- Ad-Hoc Mode**
Select this to connect directly to a device equipped with wireless LAN (such as a laptop).
- WPS (Wi-Fi Protected Setup)**
WPS is a standard for encryption settings for connections between devices that support Wi-Fi. Devices that support this standard can be connected easily using a wireless LAN with encryption.
 - PBC**
A WPS connection method using a push button.
 - PIN**
A WPS connection method using a PIN code.
- SSID**
This is a network identifier for differentiating one wireless LAN access point (router) from another. It is also called the network name or access point name.
- WEP key/Passphrase**
This is the password for accessing the wireless LAN access point (router). It is also called the network key or encryption key.

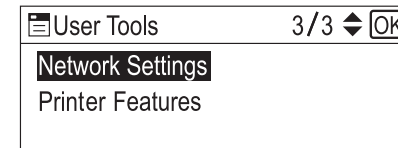
(2) Enabling Wireless LAN

1 Turn on the machine.

2 Press the [User Tools] key.

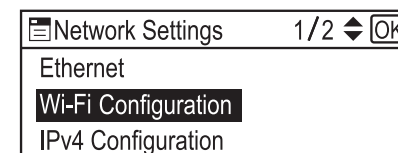


3 Press the [▼] or [▲] key to select [Network Settings], and then press the [OK] key.

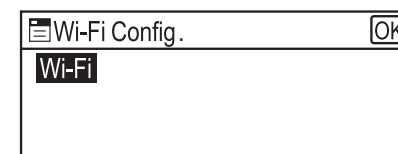


4 If you are requested to enter a password, enter the password using the number keys, and then press the [OK] key.

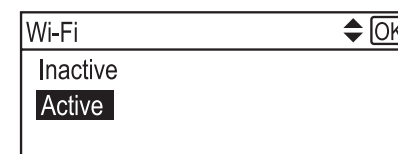
5 Press the [▼] or [▲] key to select [Wi-Fi Configuration], and then press the [OK] key.



6 Select [Wi-Fi], and then press the [OK] key.



7 Press the [▼] or [▲] key to select [Active], and then press the [OK] key.



8 Press the [User Tools] key to return to the Initial screen.

9 If you are requested to restart the machine, turn off the machine, and then turn it back on.

Note

- A password for accessing the [Admin. Tools] menu can be specified in [Admin. Tools Lock].

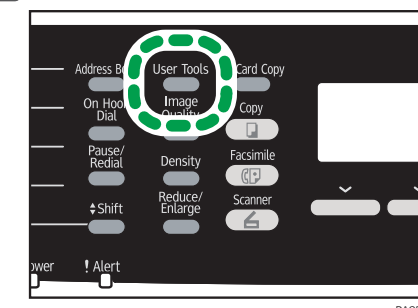
(3) Configuring the IP Address Settings

Before configuring the wireless LAN settings, configure the machine's IP address.

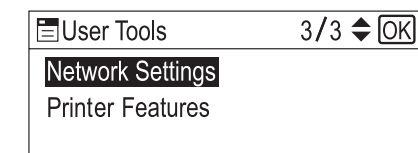
Note

- For details about configuring the IPv6 address, see the Operating Instructions.

1 Press the [User Tools] key.

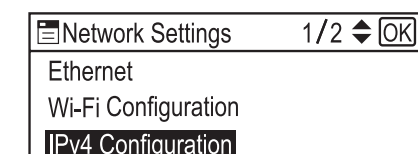


2 Press the [▼] or [▲] key to select [Network Settings], and then press the [OK] key.

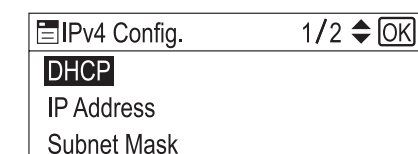


3 If you are requested to enter a password, enter the password using the number keys, and then press the [OK] key.

4 Press the [▼] or [▲] key to select [IPv4 Configuration], and then press the [OK] key.



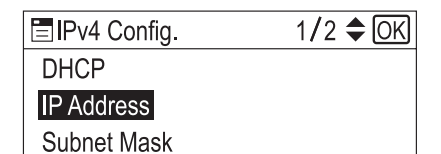
5 Press the [▼] or [▲] key to select [DHCP], and then press the [OK] key.



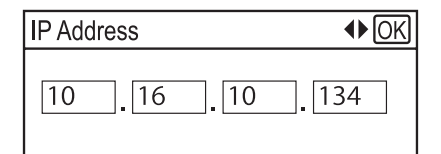
6 Press the [▼] or [▲] key to select [Active] to automatically obtain the IP address or [Inactive] to specify the IP address manually, and then press the [OK] key.

If you have selected [Active], proceed to Step 13.

7 Press the [▼] or [▲] key to select [IP Address], and then press the [OK] key.



8 Enter the machine's IPv4 address using the number keys, and then press the [OK] key.



Press the [◀] or [▶] key to move between fields.

9 Press the [▼] or [▲] key to select [Subnet Mask], and then press the [OK] key.

10 Enter the subnet mask using the number keys, and then press the [OK] key.

Press the [◀] or [▶] key to move between fields.

11 Press the [▼] or [▲] key to select [Gateway Address], and then press the [OK] key.

12 Enter the gateway address using the number keys, and then press the [OK] key.

Press the [◀] or [▶] key to move between fields.

13 Press the [User Tools] key to return to the initial screen.

14 If you are requested to restart the machine, turn off the machine, and then turn it back on.

Note

- A password for accessing the [Admin. Tools] menu can be specified in [Admin. Tools Lock].

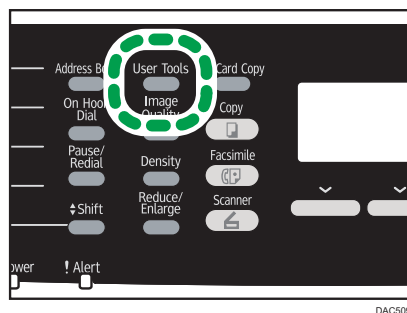
2 Easy Setup Using the WPS Button

Important

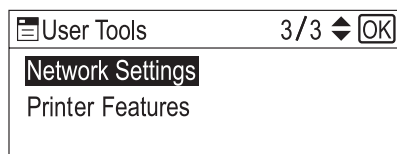
- Make sure the Ethernet cable is not connected to the machine.

1 Check that the wireless LAN access point (router) is working correctly.

2 Press the [User Tools] key.

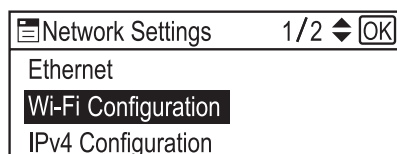


3 Press the [▼] or [▲] key to select [Network Settings], and then press the [OK] key.

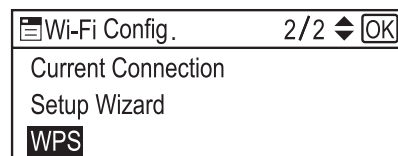


4 If you are requested to enter a password, enter the password using the number keys, and then press the [OK] key.

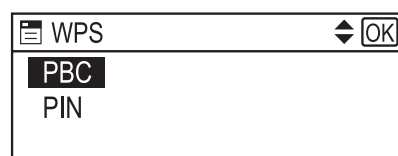
5 Press the [▼] or [▲] key to select [Wi-Fi Configuration], and then press the [OK] key.



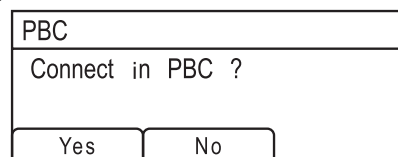
6 Press the [▼] or [▲] key to select [WPS], and then press the [OK] key.



7 Press the [▼] or [▲] key to select [PBC], and then press the [OK] key.

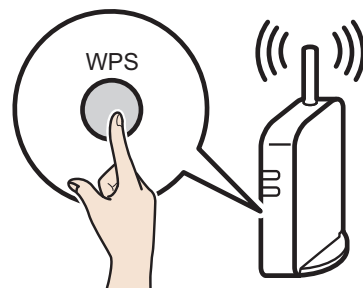


8 Press [Yes].



"Please push the [AP] within 2 minutes" appears, and the machine starts to connect in PBC method.

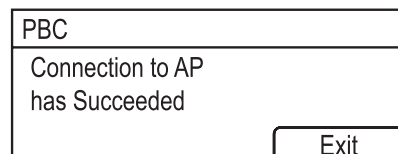
9 Press the WPS button on the access point (router) within two minutes.



- For details about how to use the WPS button, refer to the manuals for the wireless LAN access point (router).

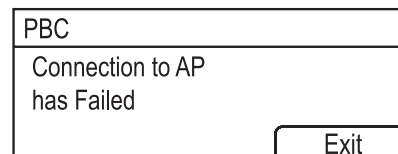
10 Check the result.

❖ Connection has succeeded:



- Press [Exit] to return to the screen displayed in Step 7, and then press the [User Tools] key to return to the initial screen.

❖ Connection has failed:



- Press [Exit] to return to the screen displayed in Step 7. Check the configuration for the wireless LAN access point (router), then try the connection again.

11 Configuring the Wi-Fi settings is complete.

The next step is to install the driver from the CD-ROM provided.

For details, see Driver Installation Guide on the CD-ROM provided.

Note

- A password for accessing the [Admin. Tools] menu can be specified in [Admin. Tools Lock].

3 Easy Setup Using a PIN Code

Important

- Make sure the Ethernet cable is not connected to the machine.
- In Steps 10 to 12, configure each setting within two minutes.

Note

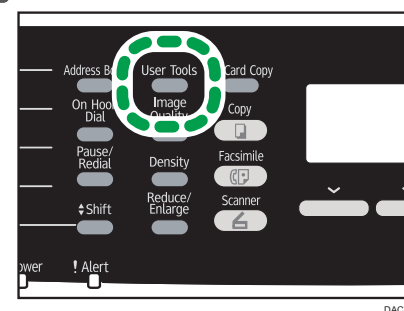
- To establish a connection using the PIN code, use a computer that is connected to the wireless LAN access point (router).

1 Check that the wireless LAN access point (router) is working correctly.

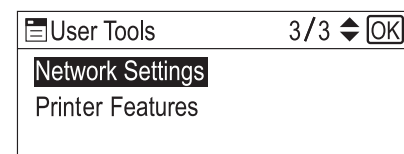
2 Open the PIN code configuration window (web page) for the wireless LAN access point (router) on your computer.



3 Press the [User Tools] key.

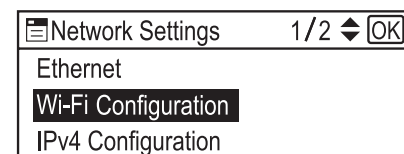


4 Press the [▼] or [▲] key to select [Network Settings], and then press the [OK] key.

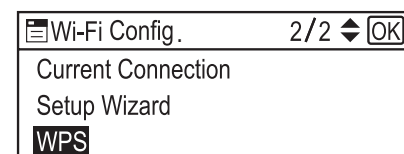


5 If you are requested to enter a password, enter the password using the number keys, and then press the [OK] key.

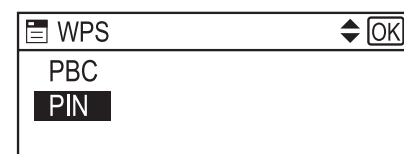
6 Press the [▼] or [▲] key to select [Wi-Fi Configuration], and then press the [OK] key.



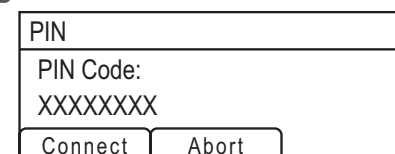
7 Press the [▼] or [▲] key to select [WPS], and then press the [OK] key.



8 Press the [▼] or [▲] key to select [PIN], and then press the [OK] key.



9 Check the PIN code.



Write down the PIN code in case you might forget it.

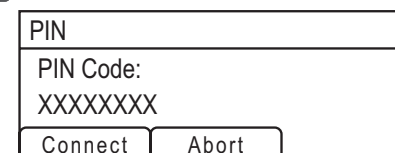
10 Enter the machine's PIN code (8 digits) on the access point (router)'s web page. (The web page accessed in Step 2)



11 Execute WPS (PIN system) from the access point (router)'s web page.



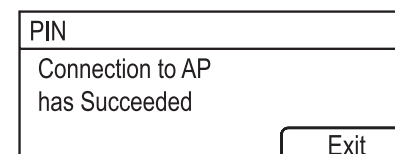
12 Press [Connect].



"Please wait for 2 minutes" appears and connecting with PIN method starts.

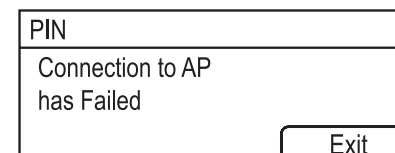
13 Check the result.

❖ Connection has succeeded:



- Press [Exit] to return to the screen displayed in Step 8, and then press the [User Tools] key to return to the initial screen.

❖ Connection has failed:



- Press [Exit] to return to the screen displayed in Step 8. Check the configuration for the wireless LAN access point (router), then try the connection again.

14 Configuring the Wi-Fi settings is complete.

The next step is to install the driver from the CD-ROM provided.

For details, see Driver Installation Guide on the CD-ROM provided.

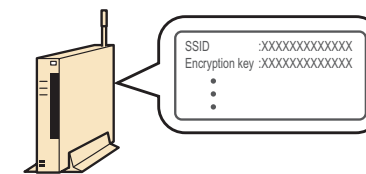
Note

- A password for accessing the [Admin. Tools] menu can be specified in [Admin. Tools Lock].

4 Manual Setup

Checking the SSID and Encryption key

The SSID and Encryption key for the wireless LAN access point (router) may be printed on a label affixed to the access point. For details about the SSID and Encryption key, refer to the access point (router) manual.



Confirm the SSID and Encryption key, and write them down on the blank space as shown below.

SSID:

Encryption key:

Next Sheet

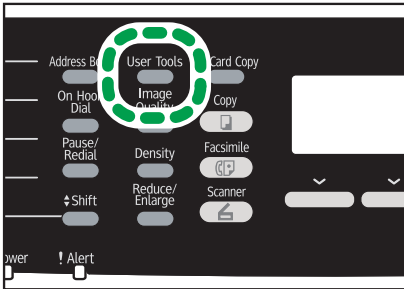
Configuring Settings Using the Control Panel

★ Important

- You need to select the same authentication method and encryption method that the access point (router) is using. You can check them on the settings screen of the access point (router).
- Make sure the Ethernet cable is not connected to the machine.

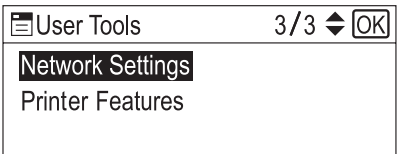
1 Check that the wireless LAN access point (router) is working correctly.

2 Press the [User Tools] key.



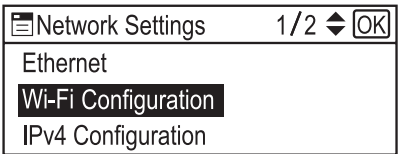
DACS09

3 Press the [▼] or [▲] key to select [Network Settings], and then press the [OK] key.

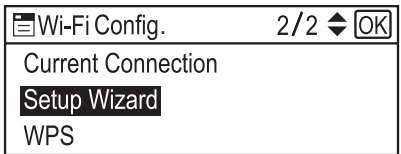


4 If you are requested to enter a password, enter the password using the number keys, and then press the [OK] key.

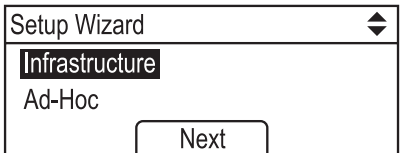
5 Press the [▼] or [▲] key to select [Wi-Fi Configuration], and then press the [OK] key.



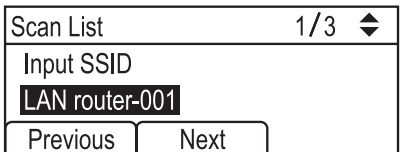
6 Press the [▼] or [▲] key to select [Setup Wizard], and then press the [OK] key.



7 Select [Infrastructure], and then press [Next].

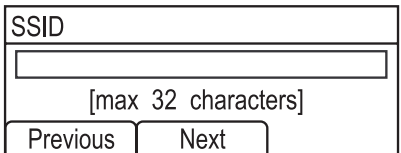


8 Search the SSID to display the list, select the destination SSID, and then press [Next].



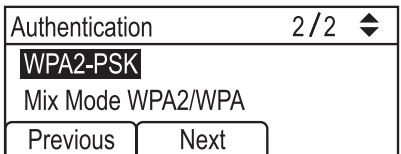
If you cannot find the destination SSID, configure the SSID according to the following procedure.

- When entering the SSID, select [Input SSID], and then press [Next].
- Enter the SSID using the number keys, and then press [Next].
The characters that can be used are ASCII 0x20-0x7e (32 bytes).



For details about checking the SSID, see "Checking the SSID and Encryption key".

9 Select the authentication method, and then press [Next].

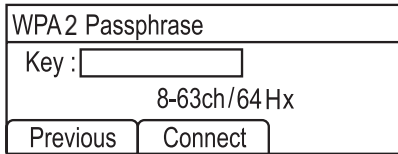


The next steps differ depending on the authentication method that you have selected. Proceed to Step 10 of the appropriate section.

- If the authentication method is set to [WPA2-PSK] or [Mix Mode WPA2/WPA] ▶ **A**
- If the authentication method is set to [Open System] or [Shared Key] ▶ **B**

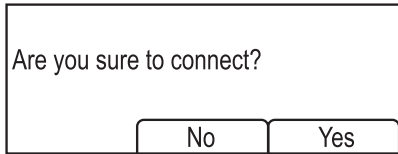
A Connecting to devices using the WPA2-PSK or Mix Mode WPA2/WPA authentication

10 Enter the encryption key using the number keys, and then press [Connect].



- As the passphrase, you can enter either 8 to 63 ASCII characters (0x20-0x7e) or 64 hexadecimal digits (0-9, A-F, a-f).
- For details about checking the encryption key, see "Checking the SSID and Encryption key".

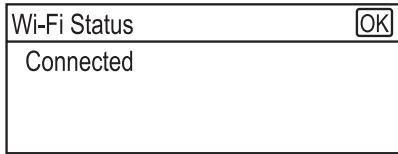
11 Press [Yes].



After connecting to the network, the Wi-Fi screen is displayed.

12 Press the [▼] or [▲] key to select [Wi-Fi Status], and then press the [OK] key.

When "Connected" is displayed, the connection has been established.



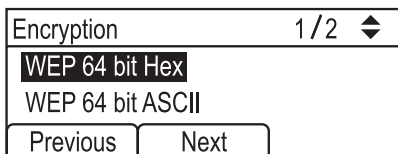
- When "Connecting..." is displayed, the connection is being established.
- When "Disconnected" is displayed, the connection has not been established. Start again from the beginning.

The next step is to install the driver from the CD-ROM provided.

For details, see Driver Installation Guide on the CD-ROM provided.

B Connecting to the devices using the Open System or Shared Key authentication

10 Select the encryption method, and then press [Next].



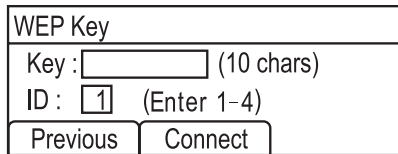
For the encryption method, refer to the following:

Encryption Method	Encryption key (Maximum number and type of characters that can be entered)
WEP 64 bit ASCII	5 characters (0x20-0x7e)
WEP 64 bit Hex	10 characters (0-9, A-F, a-f)
WEP 128 bit ASCII	13 characters (0x20-0x7e)
WEP 128 bit Hex	26 characters (0-9, A-F, a-f)

Note

- Do not select [None] except in special circumstances. If selected, the security system will not work.

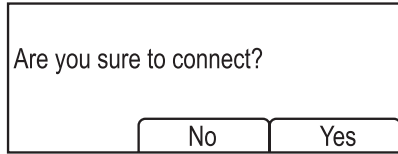
11 Enter the encryption key and ID using the number keys, and then press [Connect].



For details about checking the encryption key, see "Checking the SSID and Encryption key".

The ID is used for identifying the encryption key. You can register four encryption keys (ID 1 to 4).

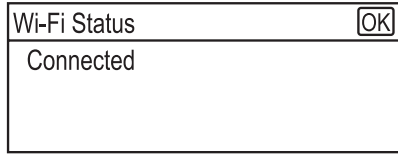
12 Press [Yes].



After connecting to the network, the Wi-Fi screen is displayed.

13 Press the [▼] or [▲] key to select [Wi-Fi Status], and then press the [OK] key.

When "Connected" is displayed, the connection has been established.



- When "Connecting..." is displayed, the connection is being established.
- When "Disconnected" is displayed, the connection has not been established. Start again from the beginning.

The next step is to install the driver from the CD-ROM provided.

For details, see Driver Installation Guide on the CD-ROM provided.

Note

- A password for accessing the [Admin. Tools] menu can be specified in [Admin. Tools Lock].

Configuring Settings Using Web Image Monitor

When configuring the settings manually, you can also use Web Image Monitor. It is convenient for entering characters that are difficult to enter using the control panel.

1 Connect the Ethernet cable to the Ethernet port.

2 Plug the other end of the cable into a network device, such as a hub.

3 Launch the Web browser.

4 In the Web browser's address bar, enter "http://(machine's IP address)/" to access the machine.

If a DNS or WINS server is used and the machine's host name has been specified, you can enter the host name instead of the IP address.

5 Click [Network Settings].

6 Select [Wireless] tab.

7 Set [Wireless] to [Active].

8 Click [Scan List] to display the list, select the destination SSID, and then click [OK].

If you cannot find the destination SSID, configure the SSID according to the following procedure.

- In [SSID], enter the SSID for the access point (router).

9 Set [Communication Mode] to [Infrastructure].

10 In [Authentication], select the authentication method.

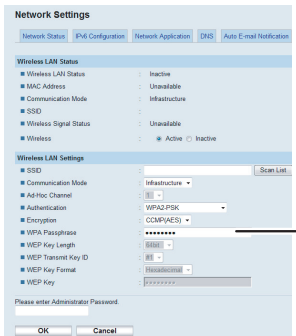
11 In [Encryption], select the encryption option.

- If the authentication method is set to [Open System], set the encryption option to [None] or [WEP].
- If the authentication method is set to [Shared Key], set the encryption option to [WEP].
- If the authentication method is set to [WPA2-PSK], set the encryption option to [CCMP (AES)].
- If the authentication method is set to [Mixed Mode WPA/WPA2], set the encryption option to [TKIP/AES].

❖ If the encryption method is set to [None]

If you have selected [None], proceed to Step 12.

❖ If the encryption method is set to [CCMP (AES)] or [TKIP/AES]



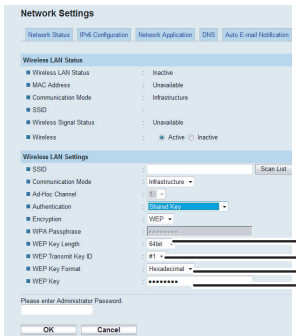
DACS34

1. WPA Passphrase

Enter the password for the access point (router).

As the passphrase, you can enter either 8 to 63 ASCII characters (0x20-0x7e) or 64 hexadecimal digits (0-9, A-F, a-f).

❖ If the encryption method is set to [WEP]



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1. WEP Key Length

Select 64 bit or 128 bit.

2. WEP Transmit Key ID

Enter the ID.

3. WEP Key Format

Select ASCII or Hexadecimal.

4. WEP Key

Enter the password for the access point (router).

For the encryption method, refer to the following:

Encryption Method		Encryption key (Maximum number and type of characters that can be entered)
WEP 64 bit	ASCII	5 characters (0x20-0x7e)
WEP 64 bit	Hex	10 characters (0-9, A-F, a-f)
WEP 128 bit	ASCII	13 characters (0x20-0x7e)
WEP 128 bit	Hex	26 characters (0-9, A-F, a-f)

12 If you are requested to enter a password.

13 Click [OK].

Note

- A password for accessing the [Administrator Tools] can be specified in [New Password].

Troubleshooting

Connection Problems

If problems occur even after you configure the connection settings again, check the following:

- ❖ **Are the settings for the wireless LAN access point (router) correctly configured?**
 - Check that the WPS function is not set to "inactive" or "Off".
 - Functions other than WPS may interfere with the WPS function depending on their settings.
 - If MAC address filtering is enabled, check if the machine's wireless MAC address has been registered.For details, refer to the manuals for the wireless LAN access point (router).
- ❖ **Are the wireless LAN access point (router) placed in an area in which they can receive radio waves?**
 - The area in which the devices can receive radio waves varies depending on the structure of the building. If the machine is away from the wireless LAN access point (router), place it closer to either of them. Then connect the machine to the devices.
- ❖ **Is the button you pressed the WPS button?**
 - The WPS button has different names, pressing or holding times depending on the wireless LAN access point (router) you are using. For details about which button you need to press or hold for a specific period of time, refer to the manual.
- ❖ **Is the PIN code configured correctly?**
 - Configure the PIN code correctly according to the manuals for the wireless LAN access point (router).
 - Check the PIN code when it is displayed or printed.
- ❖ **Is the SSID or encryption key entered correctly?**
 - Check that the SSID or encryption key is entered correctly.
- ❖ **The encryption key specified for the access point (router) cannot be configured.**
 - The machine supports WPS 2.0, lower encryption levels such as WEP and TKIP cannot be used.
 - To connect to an operating environment using a WEP or TKIP encryption, specify the setting manually as described in Chapter 4, "Manual Setup", or configure the access point (router) to use more secure encryption.

Connection has Succeeded but the Wireless LAN Cannot be Used

If a connection has been established but the wireless LAN cannot be used, check the following:

- ❖ **Are the IP address settings correctly configured?**
 - Configure the IP address settings.
- ❖ **Check that an Ethernet cable is not connected to the machine.**
 - If the machine is connected to the network using an Ethernet cable, the Ethernet connection is enabled. To use the wireless LAN, disconnect the Ethernet cable from the machine.
- ❖ **Connection may fail due to radio wave conditions.**
 - If there is another wireless network nearby, the wireless connection may fail. Wait for a while, and then connect to the network again.

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