Nikon

Mac OS X

En # Configuring the WT-4 for Upload to a Computer (Infrastructure Mode)

This document provides basic instructions on configuring the WT-4 wireless transmitter and a Mac OS X (10.5.2) computer for transmission over an infrastructure network that includes a wireless LAN access point, or bridge.

WT-4   Wireless   Wireless LAN access point   Wireless or LAN cable   Computer
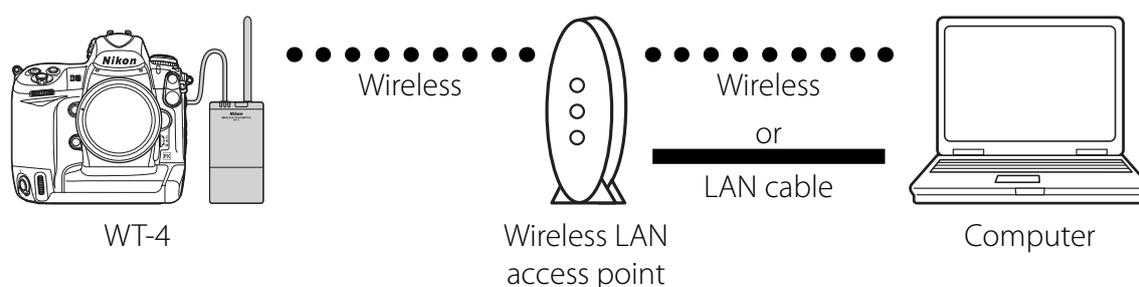
Introduction

This section describes a simple network consisting solely of a wireless LAN access point (bridge) connected to an computer via a LAN cable or wireless, with no connections to other networks or devices. Follow the steps below to use the WT-4 in this type of network.

1: Get Ready

Equipment

Ready the following:

• A WT-4 wireless transmitter *

• A fully-charged EN-EL3e battery for the WT-4

• A Nikon D3 or D300 digital SLR camera

• A fully-charged battery for the camera (an EN-EL4a for the D3, a EN-EL3e for the D300)

• A computer with Mac OS X (10.5.2) *, the WT-4 Setup Utility* installed

• A wireless LAN access point

• A LAN cable

• A memory card

• A USB cable

• Manuals for the above equipment

Network Settings

Note the IP addresses, encryption, and other settings that will be used in the wireless LAN. The following are intended as examples only.

• IP address for the WT-4: 192.168.1.4

• IP address for the computer: 192.168.1.3

• IP address of the wireless LAN access point: 192.168.1.2

• Subnet mask: 255.255.255.0

• Network name (SSID): WT-4

• Communication mode: Infrastructure

• Authentication: WPA-PSK

• Encryption: TKIP

• Encryption key: abcde123

* WT-4 firmware version 1.1 and the WT-4 Setup Utility version 1.1 are required when using the WT-4 under Mac OS X version 10.5.2. Updates to the WT-4 firmware and Setup Utility are available on the Nikon website for your area.

2: Assign the Computer an IP Address

Choose an address for the computer. The following IP address is intended as an example only.

• **IP address**: 192.168.1.3

• **Subnet mask**: 255.255.255.0

2 - 1

Open **System Preferences** and click **Network**.

2 - 2

If the wireless LAN access point is connected to the server via a wireless network, select AirPort. If the wireless LAN access point is connected to the server via an Ethernet cable, select Ethernet. Click **Advanced…**.
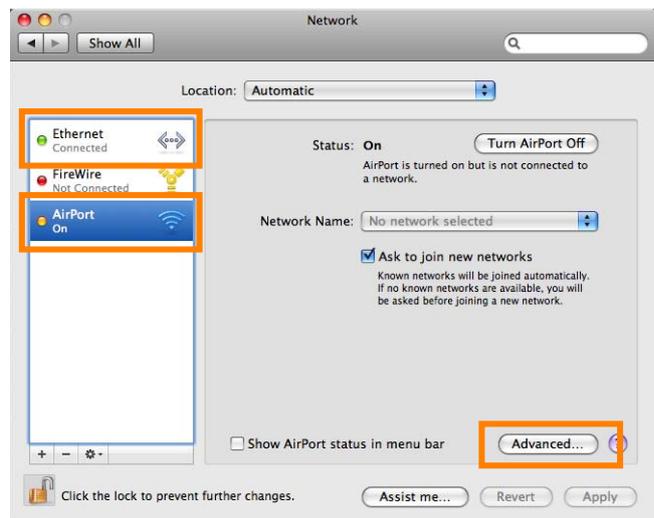
2 - 3

Select **Manually** from the **Configure IPv4** menu and enter an IP address and sub-net mask. Click **OK** to return to the previous dialog and then click **Apply**. This completes the process of assigning an IP address to the computer.
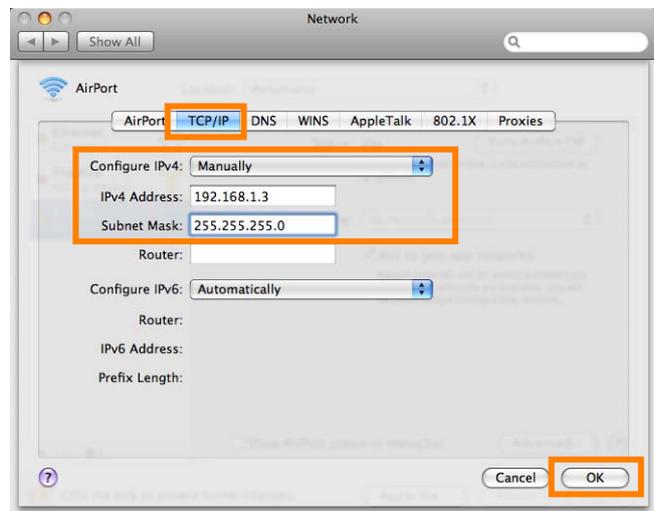
3: Configure the Wireless LAN Access Point

Configure the wireless LAN access point as described below. For more information, see the documentation provided by the manufacturer.

- **Network name (SSID)**: Enter the network identifier (network name or SSID), which may be up to 36 characters long. The network in this example uses the identifier WT-4.

- **Wireless mode**: Choose 801.11g or 801.11b.

- **Channel**: Automatic.

- **Wireless security**
  - **Authentication**: Choose from open system, shared key, WPA-PSK, or WPA2-PSK. The network in this example uses **WPA-PSK**.
  - **Encryption**: If you selected open system or shared key authentication, choose 64- or 128-bit WEP. If you selected WPA-PSK or WPA2-PSK authentication, choose TKIP or AES. The network in this example uses **TKIP**.
  - **Encryption key**: If you selected 64-bit WEP encryption, enter a 5-character ASCII or 10-digit hexadecimal key. If you selected 128-bit WEP encryption, enter a 13-character ASCII or 26-digit hexadecimal key. If you selected TKIP or AES, enter an ASCII key of from 8 to 63 characters or a 64-digit hexadecimal key. The network in this example uses **abcde123**.
  - **ANY connection**: Enable this option to make the network SSID public. This makes it easier to connect to the network, but also makes the network less secure. This option may not be available on some access points. In this example, we will enable ANY connection.

- **IP address**: Turn any "obtain automatically" options off and enter the IP address manually. Be sure that the address is different from the addresses used for the computer and WT-4. The addresses for the access point, computer, and WT-4 must however belong to the same class. In this example, we will use the following address for the access point, while the computer and WT-4 are assigned 192.168.1.3 and 192.168.1.4, respectively:

- **IP address**: 192.168.1.2

- **Subnet mask**: 255.255.255.0

- **Default gateway**: ---.---.---.---

- **DNS server**: ---.---.---.---

- **MAC address**: If the network uses MAC address filtering, the filter must be supplied with the MAC address of the WT-4. After attaching the WT-4 to the camera, turn the WT-4 on, select **Wireless transmitter** > **Device info** > **MAC address** from the camera setup menu, and note the MAC address.

4: Configure the Computer for Wireless Access

This step is only required if the computer connects to the access point via a wireless LAN. If the computer is connected to the wireless access point via a LAN cable, proceed to 5 (pg. 8). The settings you choose in 4 should conform to the network settings selected in 3 (pg. 4).

• **Network name (SSID)**: WT-4

• **Security type**: WPA-PSK

• **Encryption type**: TKIP

• **Security key/Passphrase**: abcde123

4 - 1

Open **System Preferences** and click **Network**.

4 - 2

Click the action button and select **Set Service Order**.
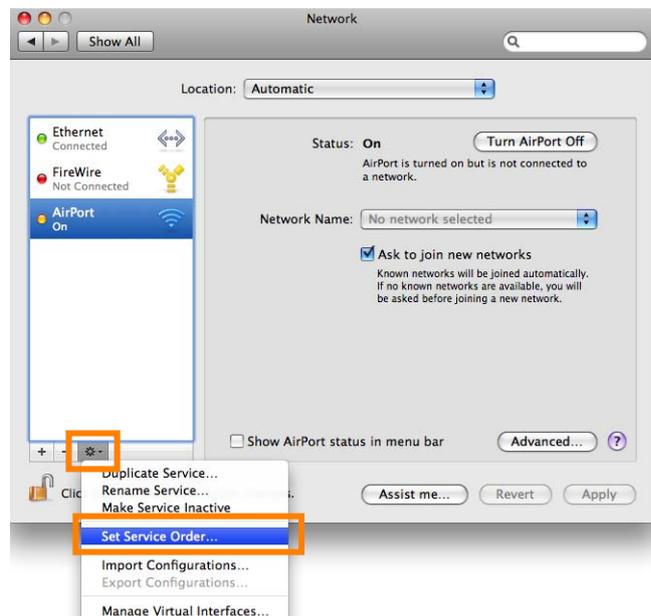
4 - 3

Move AirPort to the top of the services list and click **OK**.
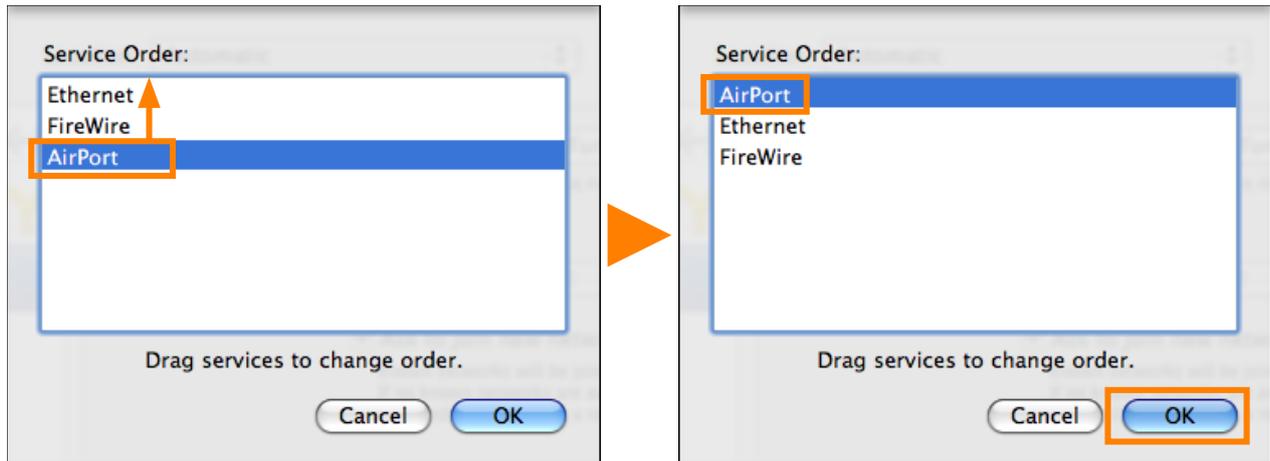
4 - 4

After selecting **AirPort** and confirming that the service is active and that **Show AirPort status in menu bar** is checked, click **Advanced…**. If AirPort is off, click **Turn AirPort On**.
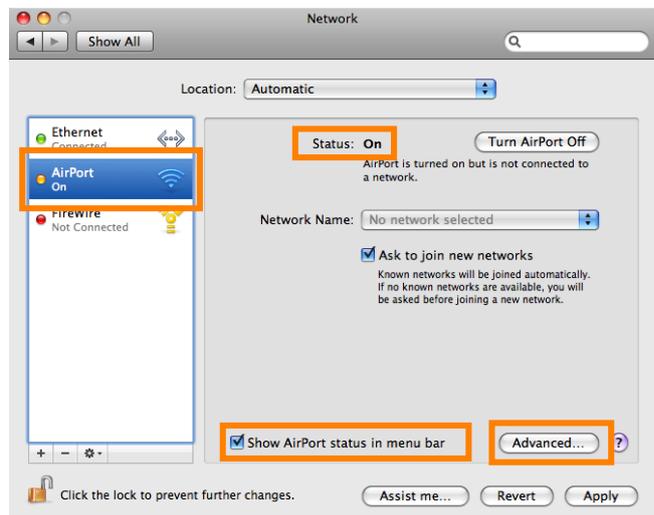
4 - 5

Click **+**.
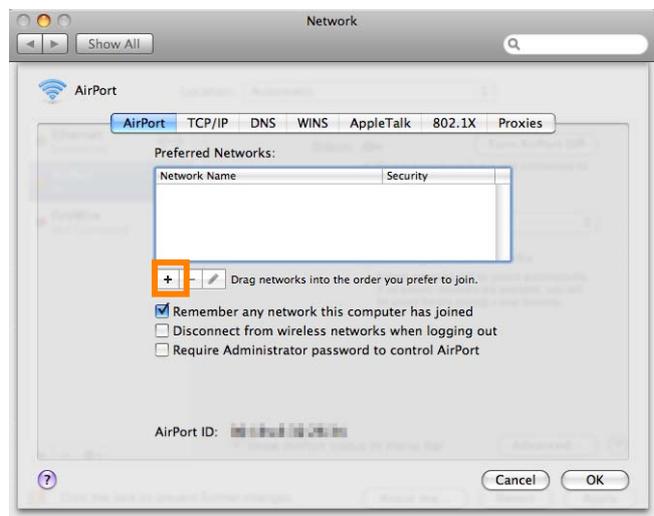
4 - 6

Enter the network name and other settings for the wireless access point and click **Add**.

- **Network name**: Enter a name of up to 32 characters. The network in this example uses the identifier **WT-4**.

- **Security**: Choose from **None**, **WEP Password**, **WEP 40/128-bit hex**, **WEP 40/128-bit ASCII**, **WPA Personal**, **WPA2 Personal**, **LEAP**, **WPA Enterprise**, and **WPA2 Enterprise**.

- **Password**: If WEP or WPA encryption is enabled, enter a security key. The length of the key depends on the option selected for **Wireless Security**:

  - **WEP Password**: Enter a five- or thirteen-character key.

  - **WEP 40/128 bit (hex)**: Enter a 10- or 26-digit hexadecimal key. Hexadecimal keys may contain only the numbers 0–9 and the letters a, b, c, d, e, and f.

  - **WEP 40/128 bit (ASCII)**: Enter a five- or thirteen-character key.

  - **WPA-Personal**, **WPA2-Personal**: Enter a key of 8 to 63 characters.

4 - 7

Click **OK** to return to the previous dialog and click **Apply**.
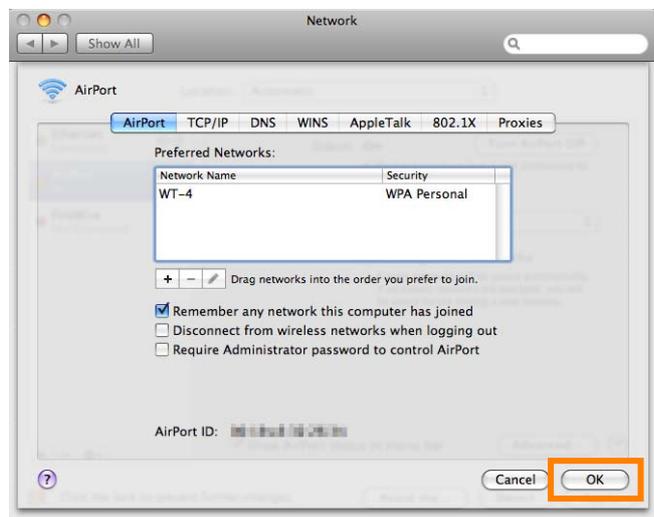
5: Copy the Network Profile to the Camera

Use the WT-4 setup utility to copy the network profile to the camera. Before proceeding, make sure that **MTP/PTP** is selected for the **USB** option in the camera setup menu.

5 - 1

After starting the computer, use the supplied USB cable to connect the camera and turn the camera on.
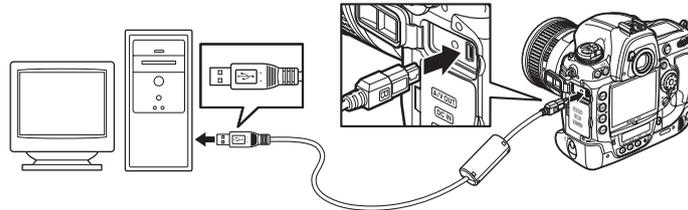
5 - 2

Click the **WT-4 Setup Utility** icon in the Dock.

5 - 3

The dialog shown below will be displayed; click **Next**.

5 - 4

Select **Add/Edit profiles** and click **Next**.

5 - 5

Select **Add new profile** and click **Next**.
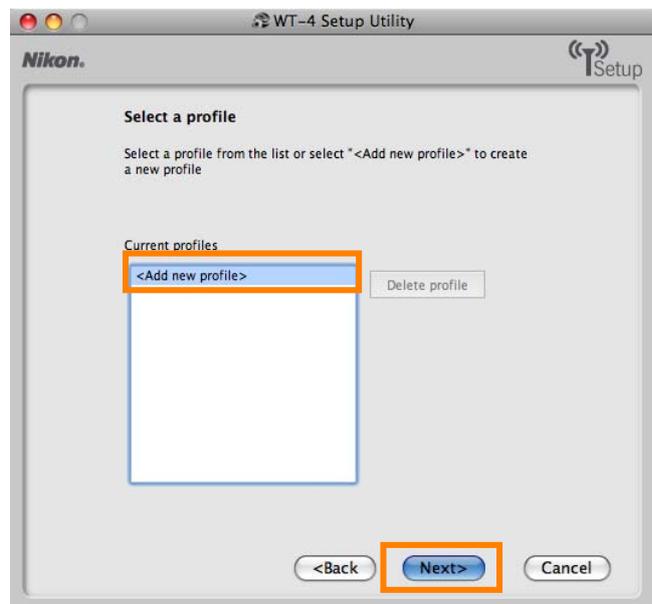
5 - 6

Enter the following information and click **Next**:

• **Profile name**: Enter a name of up to 16 characters (in this example, **PC1**).

• **Profile type**: Choose **Computer**.

• **Interface type**: Choose **Wireless & Ethernet** for networks that include wireless, or **Ethernet only** for Ethernet-only networks.

5 - 7

Enter the following information and click **Next**.

• **Network name (SSID)**: WT-4

• **Communication mode**: Infrastructure

• **Authentication**: WPA-PSK

• **Encryption**: TKIP

• **Encryption key**: abcde123

5 - 8

Enter the following information and click **Next**.

- **IP address**: 192.168.1.4
- **Subnet mask**: 255.255.255.0
- **Default gateway**: Remove the check from this option.
- **DNS Server**: Remove the check from this option.
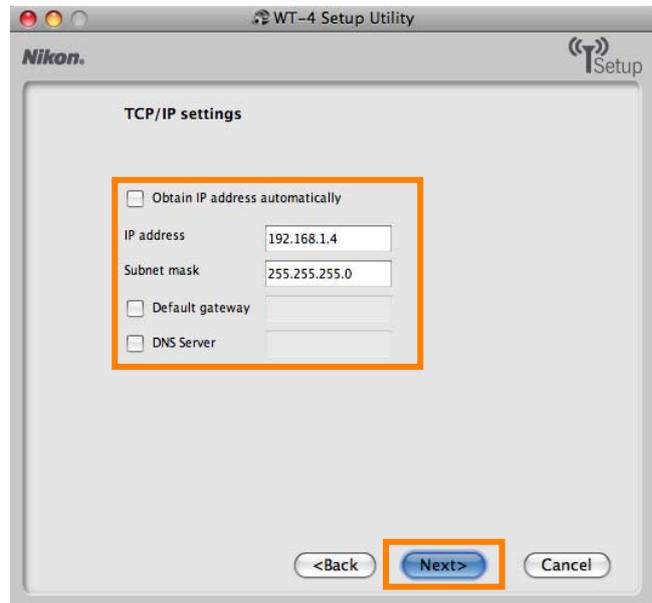
✎ Choosing an IP Address

Be sure that the address for the WT-4 is different from the addresses used for the computer and access point. The addresses for the access point, computer, and WT-4 must however belong to the same class. In this example, we will use 192.168.1.2 for the access point, 192.168.1.3 for the computer, and 192.168.1.4 for the WT-4.

5 - 9

Confirm that settings are correct and click **Next**.

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5 - 10

Select **Finish wizard** and click **Next**.

5 - 11

Turn the camera off and disconnect the USB cable. The network profile has now been copied to the camera.

6: Connect to the Computer

In this step, you will establish a wireless connection between the WT-4 and the computer. Before connecting the WT-4, select **MTP/PTP** for the **USB** option in the camera setup menu and confirm that the host computer is running and the user is logged in.

6 - 1

Insert a memory card in the camera, connect the WT-4, and turn the camera on.

6- 2

Choose an option for the **Wireless transmitter** > **Mode** option in the camera setup menu.

Mode
⤳ Transfer mode ▶
⊞ Thumbnail select mode
🖳 PC mode
🖨 Print mode
?
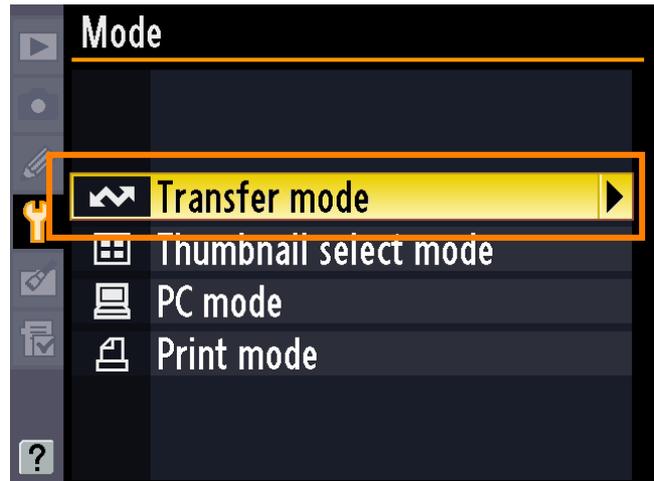
6 - 3

A list of available connection profiles will be displayed. Highlight the desired profile and press ⓘ.

Choose profile ⤳
《γ》品 PC1 OK
FTP registration
? 🗑Delete
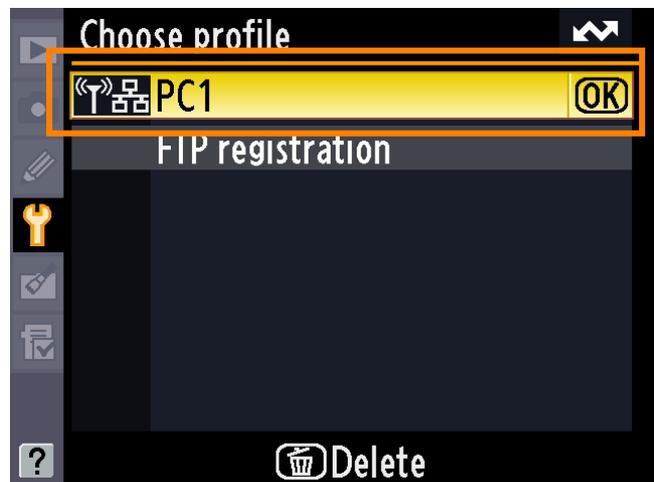
6 - 4

Return to the wireless transmitter menu and turn the WT-4 on. The profile name will be highlighted in green when a connection is established.

This completes the process of connecting to the computer.
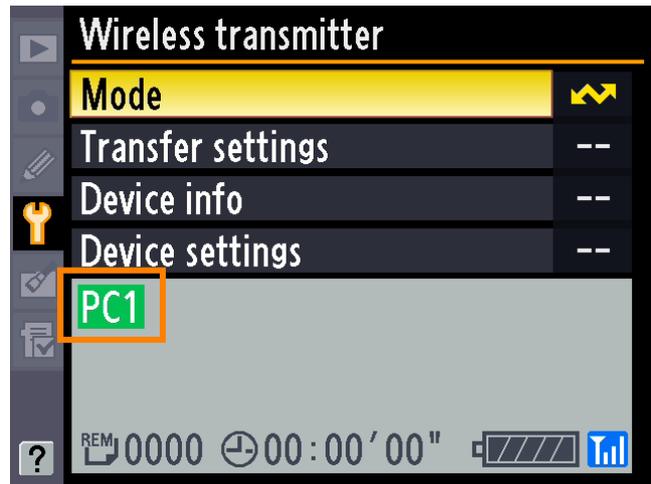
✎ *Third-Party Security Software*

Third-party security software with firewall support may block the ftp server port, preventing access to the computer. This can be avoided by setting the software to allow protocols send and receive access to TCP ports 15740 and UDP ports 5353. For more information, see the documentation for the software or firewall.

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