Print Server
LPV4-U2-300S

User Manual

www.buffalotech.com

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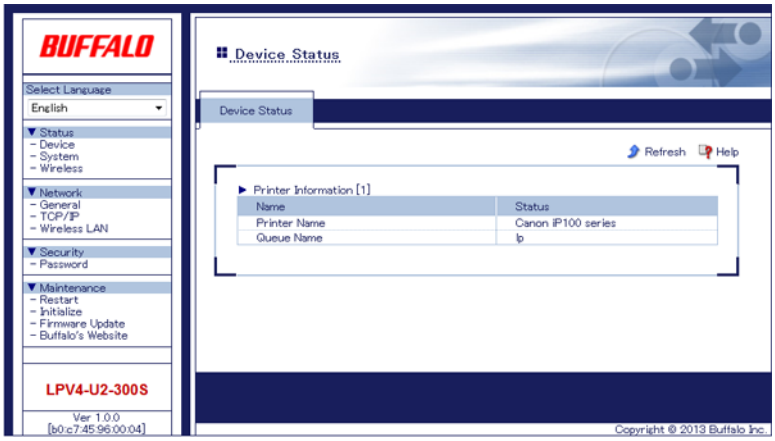
Chapter 1 - Configuration

Introduction

Configuration of the print server is done from Settings, the web-based configuration GUI.



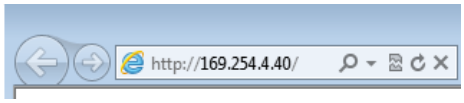
Note: Supported browsers include Internet Explorer 8 and later, Firefox 20 and later, and Safari 5 and later.

Access by IP Address

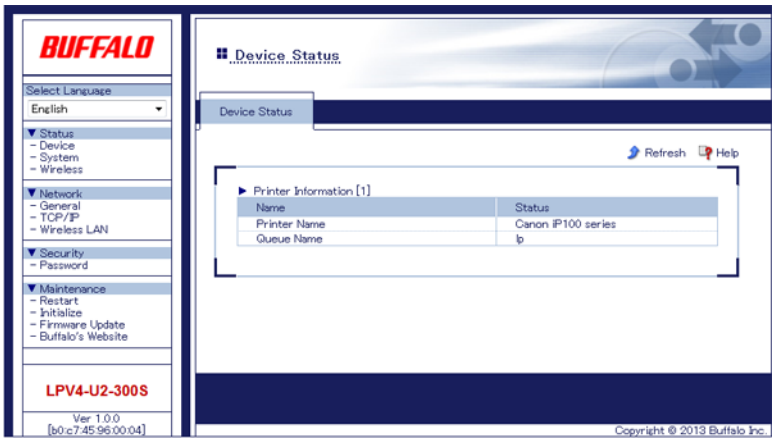
If you know the IP address of the print server on your network, just type it in to the URL field of your browser and press the enter key to open Settings. If you don't know the print servers IP address, refer to "Access from Network USB Navigator" below.

1 Open a web browser.

2 Enter the print server's IP address in the address field and press the enter key.



3 When the security window appears, enter "admin" for the username and "password" for the password, then click *OK*.



Access from Network-USB Navigator

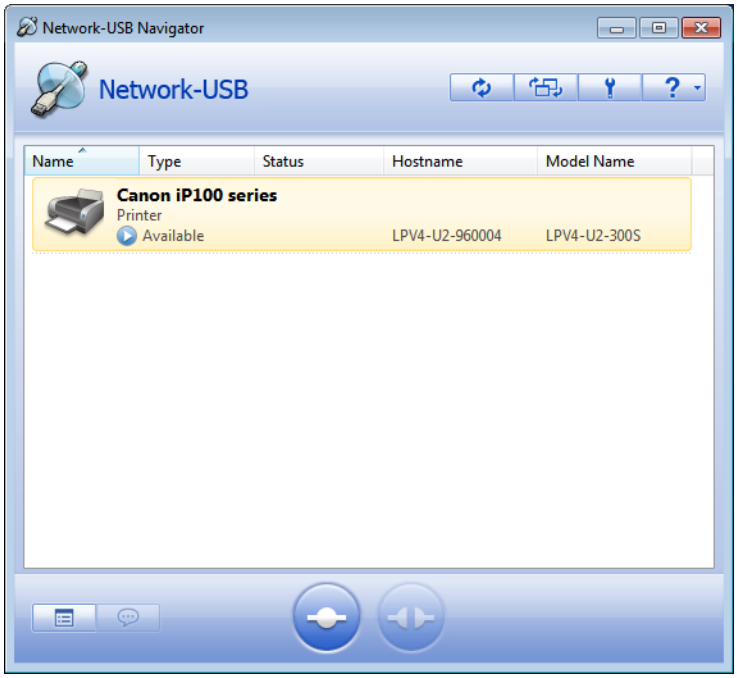
If Network-USB Navigator has been installed on your PC, you use it to open Settings.

Note: Refer to chapter 2 to install Network-USB Navigator.

1 Open Network-USB Navigator.

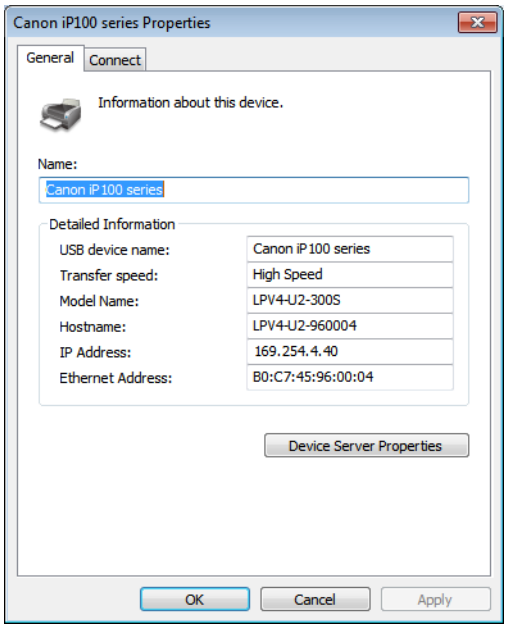
- For Windows 8, select *Network-USB Navigator* from the "Start" screen.
- For Windows 7, Windows Vista, or Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

2 Select your printer and click (properties).

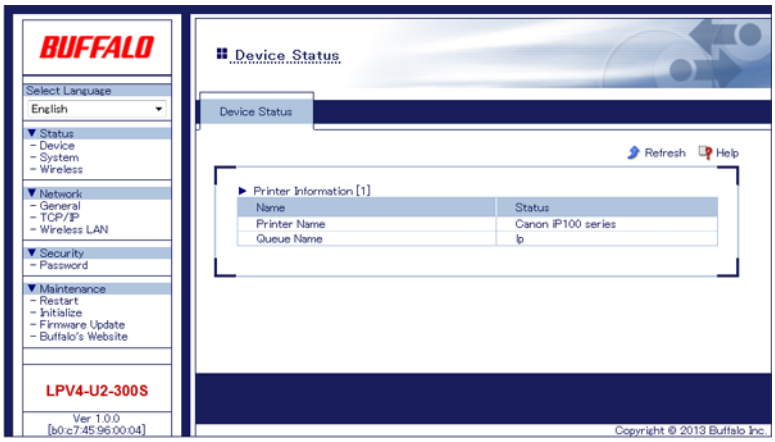


Note: If multiple USB devices are displayed, select the "LPV4-U2-300S".

3 Click *Device Server Properties*.



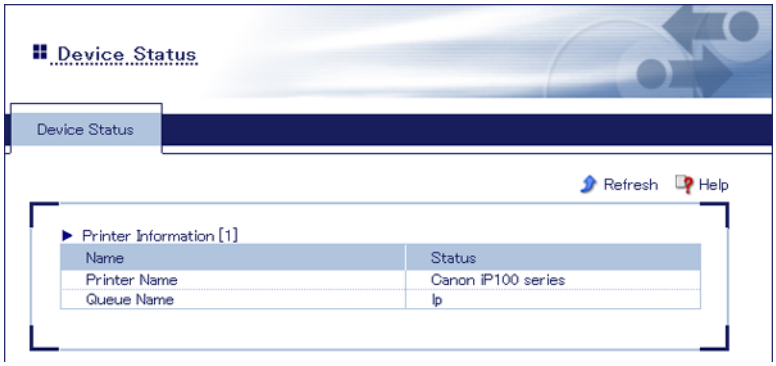
4 Settings will open. When the security window appears, enter "admin" for the username and "password" for the password, then click *OK*.



Device Status

View information for the device connected to the print server.

Status - Device

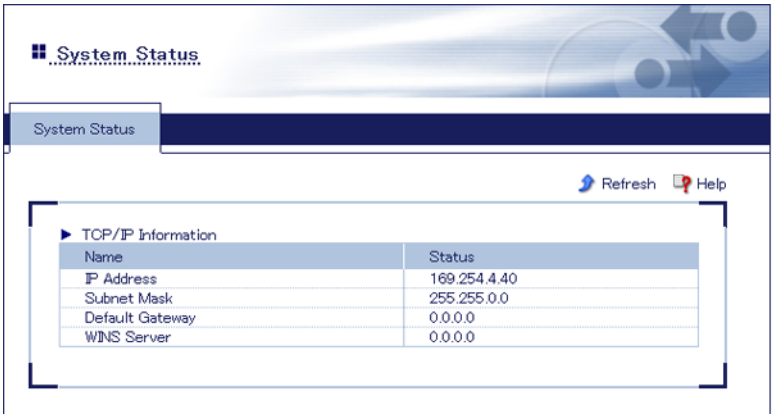


Printer Name	Displays the name of the printer connected to the print server.
Queue Name	Displays the queue name for LPR printing.

System Status

View system information for the print server.

Status - System

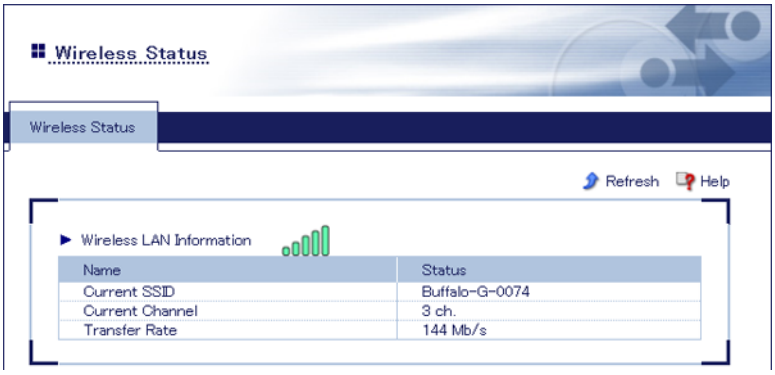


IP Address	Displays the assigned IP address.
Subnet Mask	Displays the subnet mask.
Default Gateway	Displays the default gateway address.
DHCP Server	Displays the obtained DHCP server's IP address.
WINS Server	Displays the WINS server's IP address.

Wireless Status

View wireless LAN interface information for the print server.

Status - Wireless



	Displays the signal strength.
Current SSID	Displays the current SSID.
Current Channel	Displays the current channel.
Transfer Rate	Displays the wireless transmission rate.

General Settings

Configure the hostname and the connection method here.

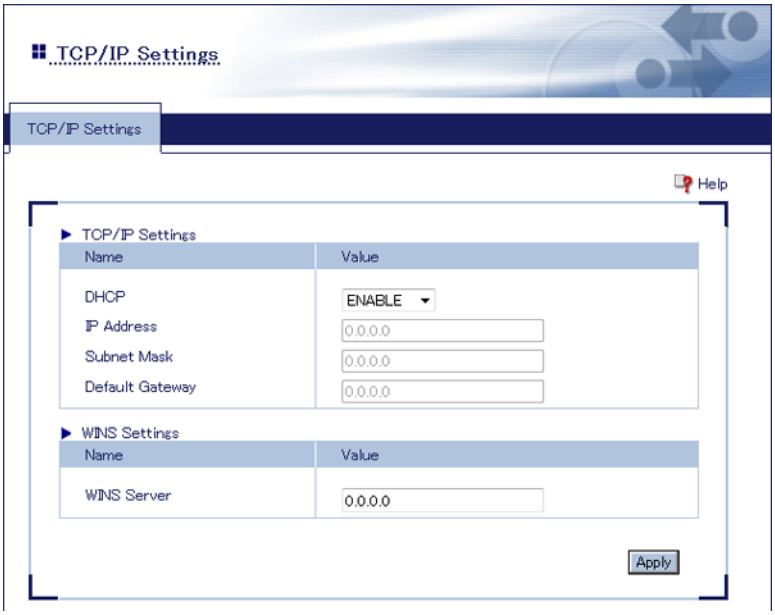
Network - General

Hostname	Enter a name for the print server. This will be displayed in Network-USB Navigator and other software. This name should be unique within your network. The hostname may contain up to 15 alphanumeric characters and hyphens (-). A hyphen cannot be used for the first character. After changing the hostname, the printer port must be reconfigured. Refer to Chapter 4 for more details.
Connection Method	Select a connection method. **Auto** Detects the connection method automatically. If a LAN cable is attached to the print server, it uses a wired connection. Otherwise, the connection is wireless. **Wireless** The print server works as a wireless device. **Wired** The print server works as a wired device.

TCP/IP

Configure print server's network settings here.

Network - TCP/IP



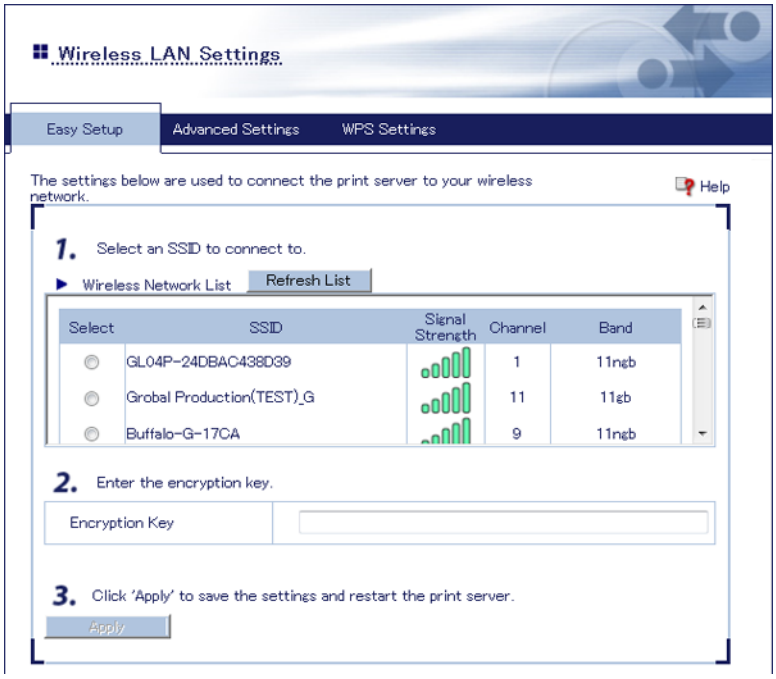
Note: Only assign the print server a valid IP address, otherwise Settings cannot be accessed. If you cannot open Settings, initialize the print server, which restores all settings to their factory default values.

DHCP	If you're using DHCP on your network, enable it here. If you don't use DHCP, you'll need to configure the print server's IP address manually.
IP Address	If DHCP is not available on your network, you may configure the print server's IP address manually here.
Subnet Mask	If DHCP is not available on your network, you may configure the print server's subnet mask manually here.
Default Gateway	If DHCP is not available on your network, you may configure the print server's default gateway address here. If 0.0.0.0 is entered here, no default gateway is used.
WINS Server	You may enter a WINS server address here (optional). If DHCP is in use, the WINS server assigned by DHCP will override this setting.

Wireless LAN Settings (Easy Setup)

Configure wireless connection settings here.

Network - Wireless LAN - Easy Setup

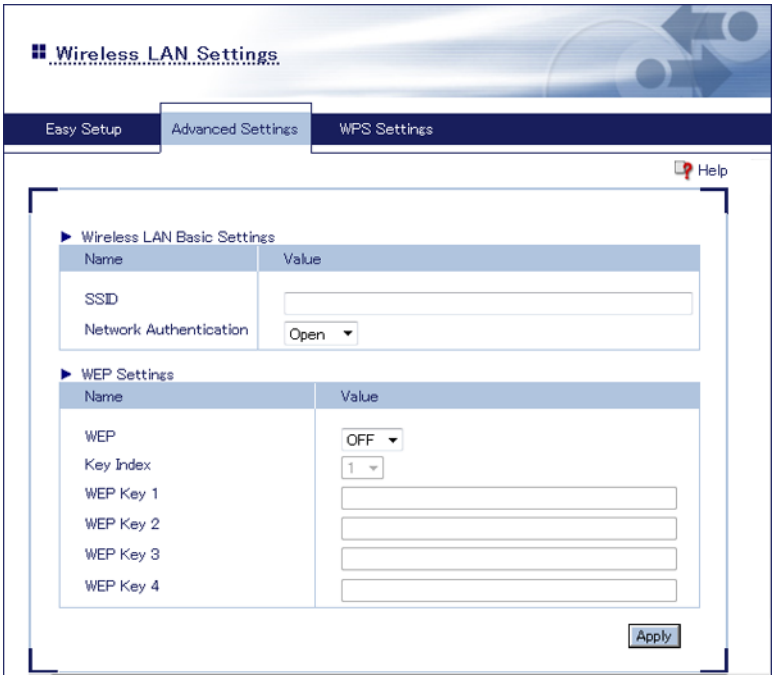


Wireless Network List	Detected wireless devices are listed. Click *Refresh List* to search again. Up to 32 devices are displayed in order of strength of the signal.
Encryption Key	Enter the encryption key of the selected wireless device.
Apply	Click this button to apply settings and reboot the print server.

Wireless LAN Settings (Advanced Settings)

Configure advanced wireless settings here.

Network - Wireless LAN - Advanced Settings



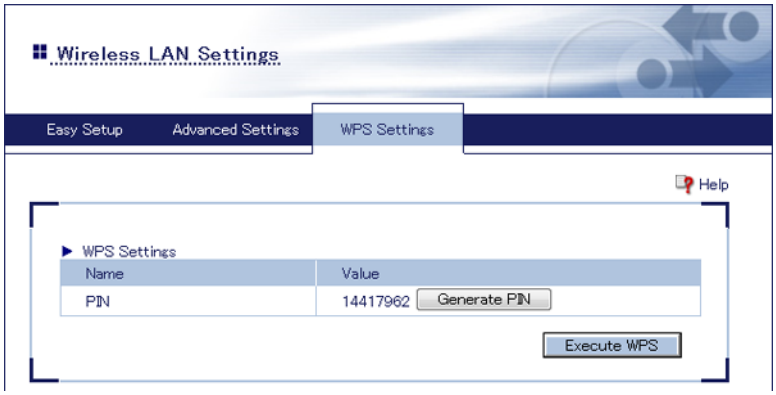
SSID	Enter the SSID of the access point that you want to connect to. SSIDs may contain up to 32 alphanumeric characters, hyphens (-), and underscores (_).
Network Authentication	Select the same authentication method that your wireless router or access point uses. **Open (No Authentication)** Choose this if your network uses no authentication or WEP. **WPA** WPA uses PSK authentication, TKIP or AES encryption, and a pre-shared key. **WPA2** WPA2 uses PSK, AES encryption, and a pre-shared key.
WEP Settings	
WEP	Select whether to enable or disable WEP encryption.
Key Index	Select the number of the WEP key you want to use (1 - 4). This WEP key should be same as the one your access point is configured with.

WEP Key 1 **WEP Key 2** **WEP Key 3** **WEP Key 4**	Up to 4 WEP keys can be configured. Alphanumeric or hexadecimal WEP keys of either 64-bit or 128-bit lengths are supported.
WPA/WPA2 Settings	
Encryption Method	Select the encryption method for WPA authentication (TKIP or AES). This setting should match that of the access point. **Note:** Usually, AES is safer than TKIP. Always use AES for your wireless network if it is supported by your devices.
Pre-shared Key	Enter the pre-shared key. This is needed when TKIP or AES is used for encryption. Use the same key that your access point and other wireless devices are using. Use 8 - 63 alphanumeric or hexadecimal characters.

Wireless LAN Settings (WPS Settings)

Configure WPS here.

Network - Wireless LAN - WPS Settings

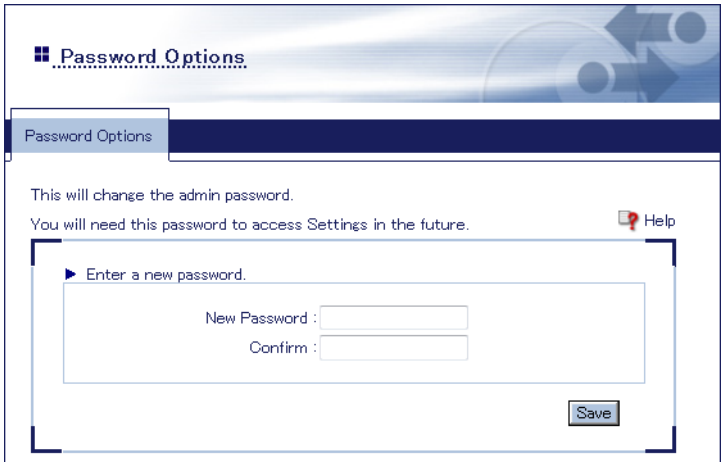


PIN	Displays PIN for WPS connection. Click *Generate PIN* to generate new PIN. To connect to the access point, click *Execute WPS* and enter the PIN to the access point within 2 minutes.

Password Options

Configure print server's password here.

Security - Password



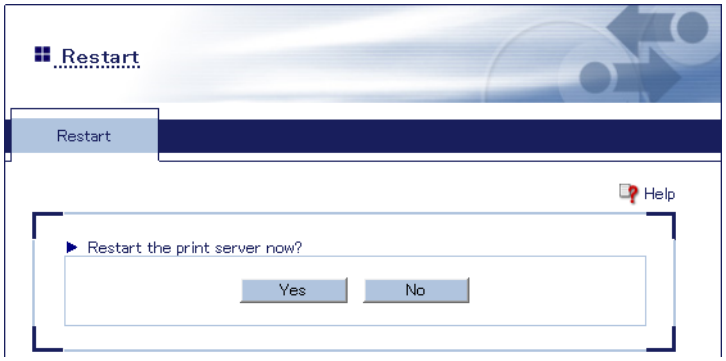
New Password	The administrator password may contain up to 8 alphanumeric characters and underscores (_). This password is used for logging into Settings.
Confirm	Enter the password again for confirmation.

Maintenance

Restart

Restart the print server.

Maintenance - Restart

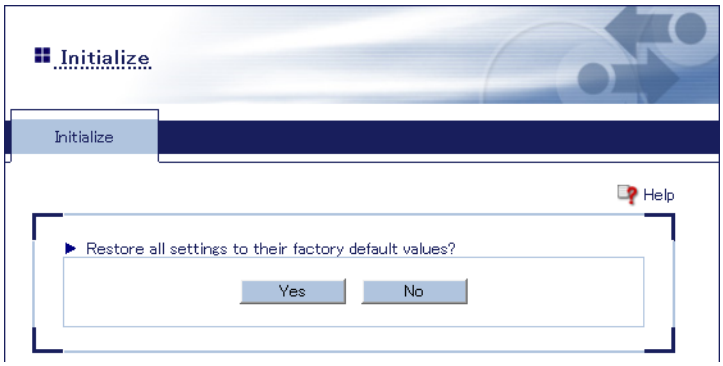


Restart	Click *Yes* to restart the print server. All current connections to the print server will be disconnected.

Initialize

Initialize the print server.

Maintenance - Initialize

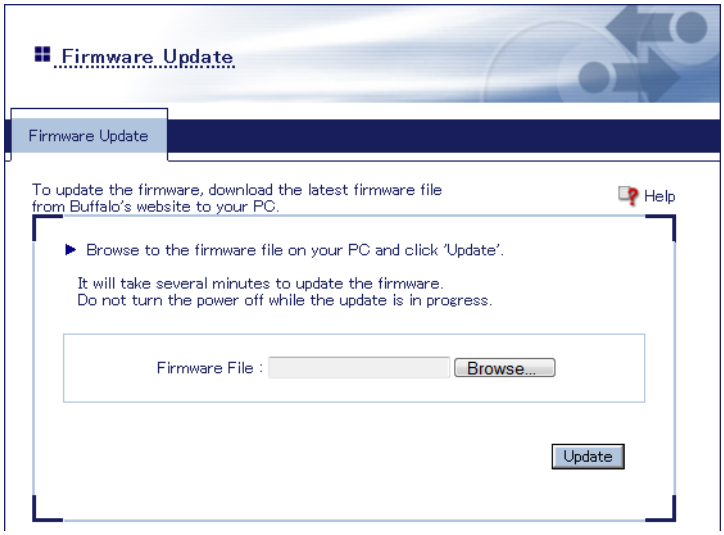


Initialize	Click *Yes* to restore all settings to their factory default values.

Firmware Update

Update the print server's firmware.

Maintenance - Firmware Update



Note: Do not turn the power off until update is finished! When the power LED stops blinking and glows steadily, it is safe to turn off the power.

Firmware File	Click *Browse* and choose the firmware file. Click *Update* to start updating.

Default Configuration Settings

Feature	Parameter	Default Setting
General Settings	**Username**	admin
	Password	password
	Hostname	LPV4-U2-XXXXXX (Where "XXXXXX" is the last 6 digits of the print server's MAC address)
	Connection Method	Auto
TCP/IP Settings	**DHCP**	Enabled
	IP Address	0.0.0.0
	Subnet Mask	0.0.0.0
	Default Gateway	0.0.0.0
	WINS Server	0.0.0.0
Wireless LAN Settings	**SSID**	None
	Network Authentication	Open
	WEP	Off
	Key Index	1
	WEP Key	None
	PIN	An 8-digit random value

Chapter 2 - Network-USB Navigator

Introduction

Network-USB Navigator lets you connect a multifunctional printer and use functions such as scanning, ink levels, etc. You can also directly access Settings from the application.

> **Note:** While a printer is accessed through Network-USB Navigator, it cannot be used by anyone else. Disconnect the printer after using the application.

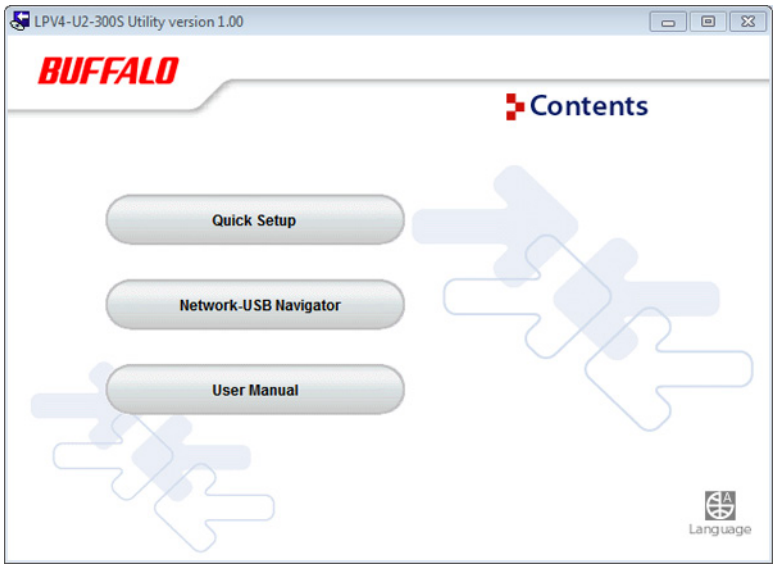
Install Network-USB Navigator

For Windows Users

Follow the procedure below to install the application.

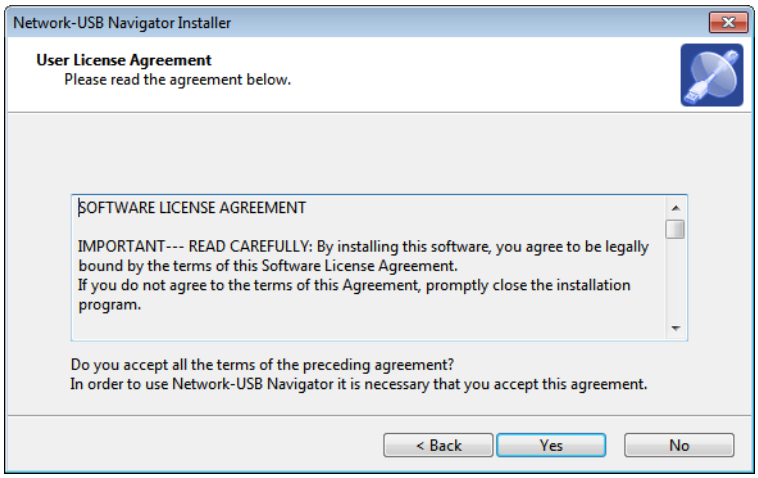
1. Access "d.buffalo.jp/lpv4-u2-300s/" and download LPV4-U2-300S Utility.
2. Run the utility.

3 Click *Network-USB Navigator*.

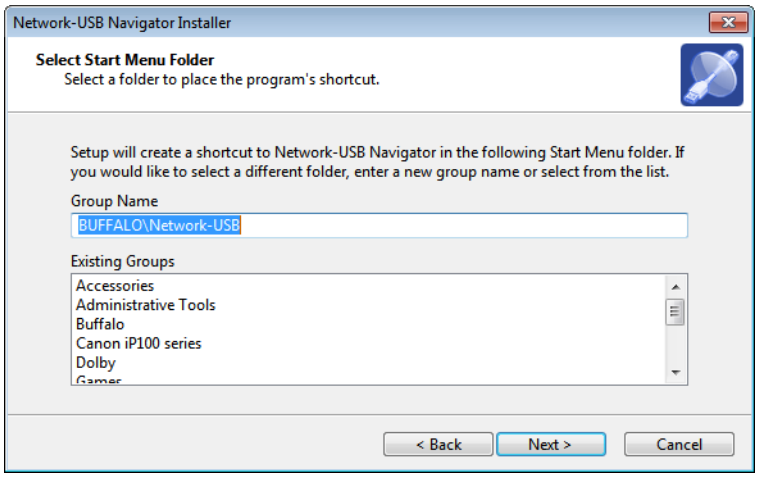


4 If "User Account Control" is displayed, click *Yes* or *Continue*.

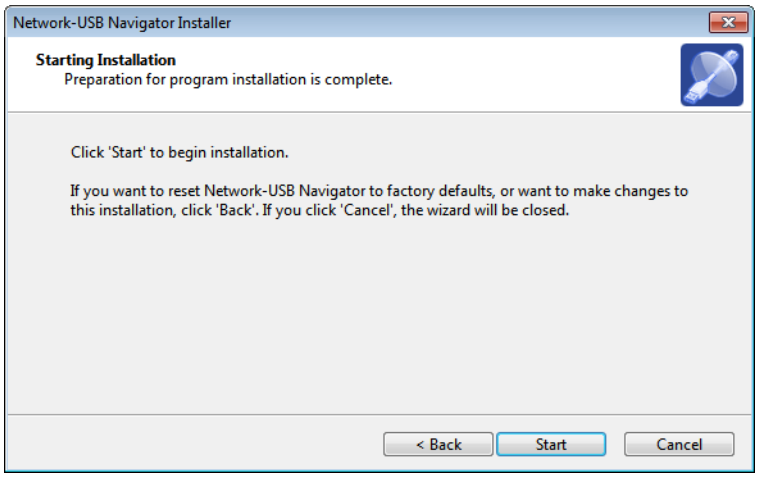
5 Read the user license agreement and click *Yes* to agree.



6 Click *Next*.

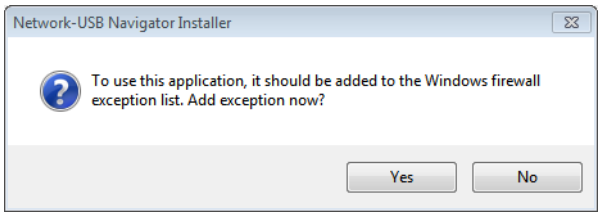


7 Click *Start*.

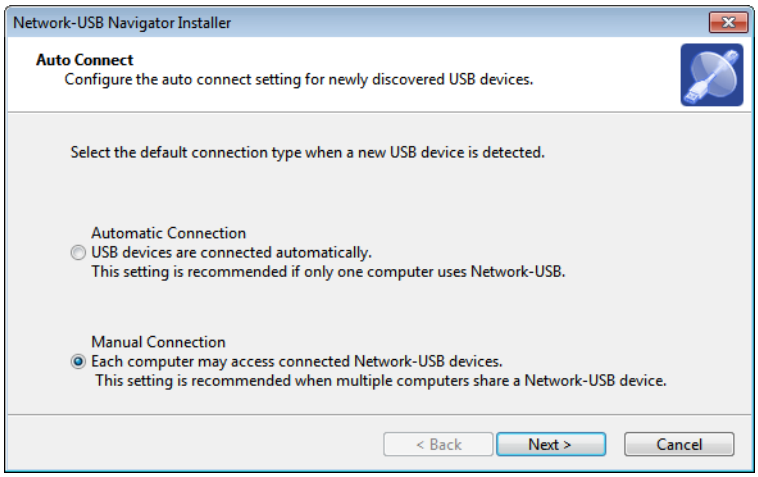


8 If "Would you like to install this device software?" is displayed, check *Always trust software from "BUFFALO INC.".* and click *Install*.

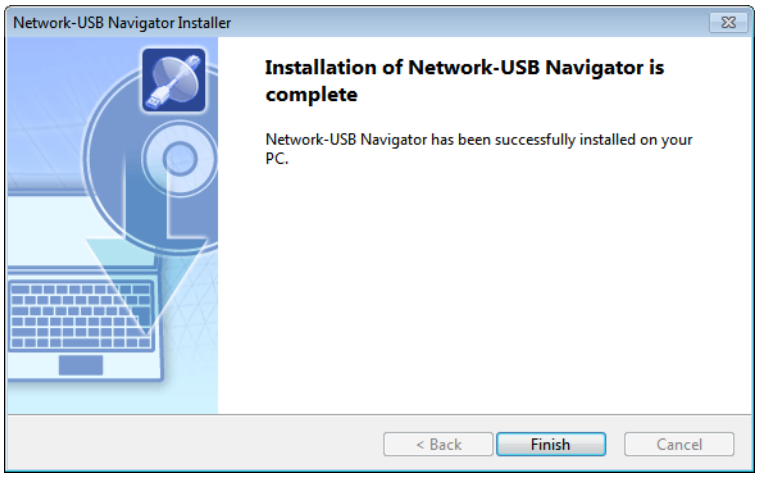
9 Click *Yes*.



10 Select *Manual Connection* and click *Next*.



11 Click *Finish*.



You have installed Network-USB Navigator. Next, go to “Confirm Settings”.

For Mac Users

Follow the procedure below to install the application.

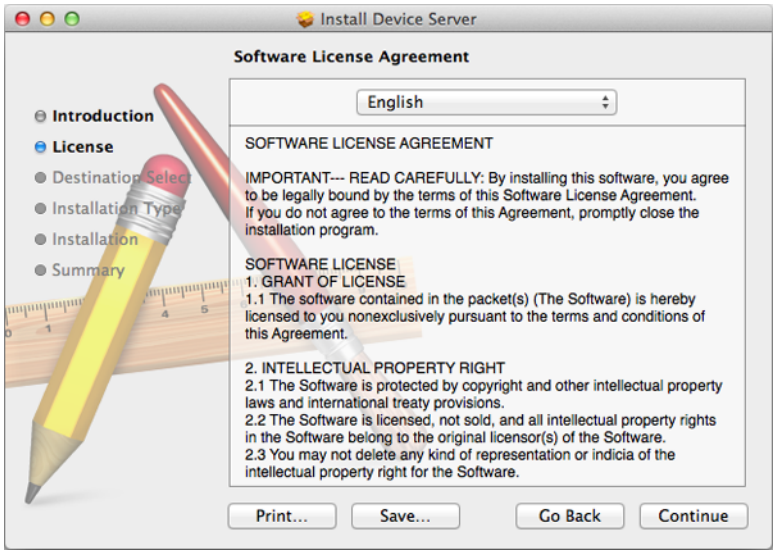
Note: The examples in this chapter show OS X 10.8. Your operating system might be slightly different.

1 Access "d.buffalo.jp/lpv4-u2-300s/" and download the LPV4-U2-300S utility.

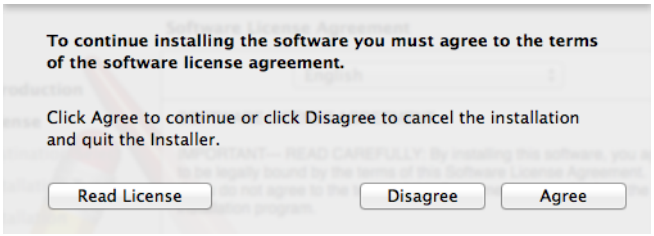
2 Run the utility and click *Network-USB Navigator*.

3 Click *Continue*.

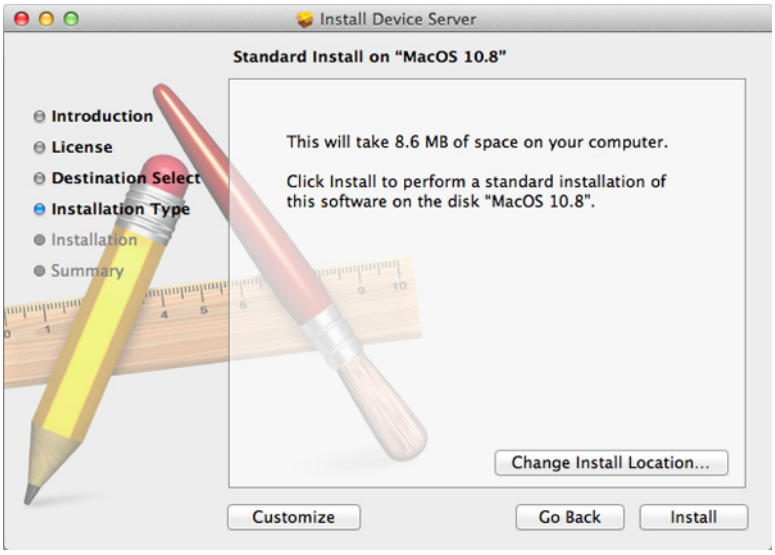
4 Read the software license agreement and click *Continue*.



5 Click *Agree* to accept the software license agreement.

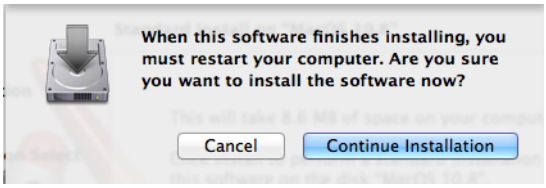


6 Click *Install*.

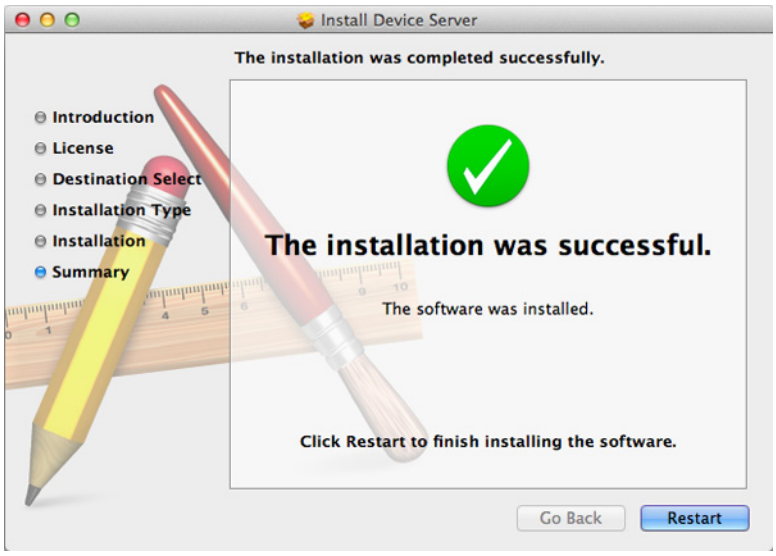


7 Enter your name and password, then click *Install Software*.

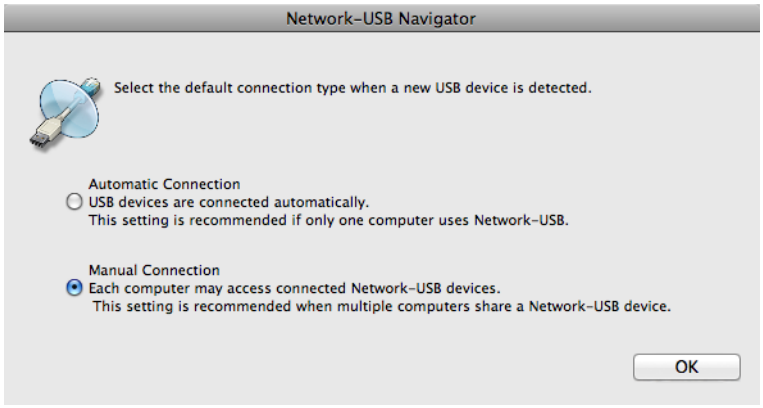
8 Click *Continue Installation*.



9 Click *Restart*.



10 After rebooting, select *Manual Connection* and click *OK*.



You have installed Network-USB Navigator. Next, go to "Confirm Settings".

Confirm Settings

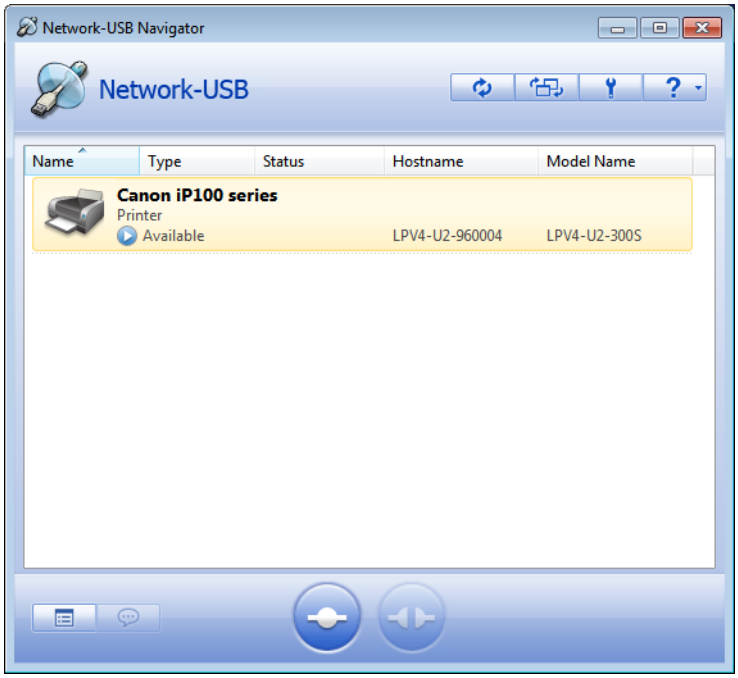
Use the following procedure to make sure that Network-USB Navigator is configured correctly.

Note: The examples here show Windows screens, but the procedure for Mac OS is the same.

1 Open Network-USB Navigator.

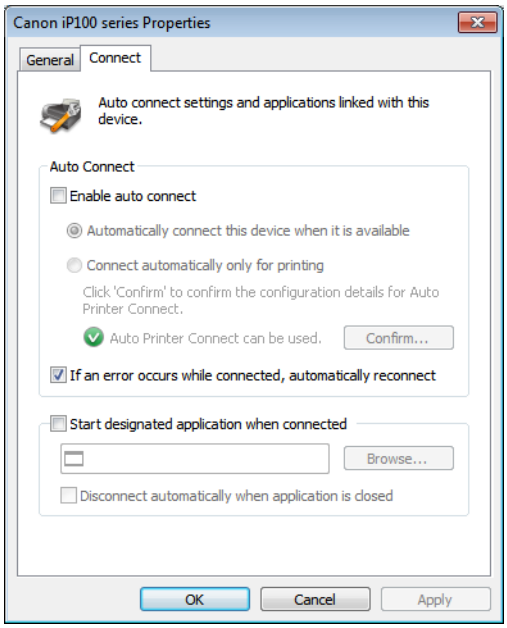
- For Windows 8, select *Network-USB Navigator* from the *Start* screen.
- For Windows 7, Windows Vista and Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

2 Select your printer and click (properties).



Note: If multiple USB devices are displayed, select the *LPV4-U2-300S*.

3 Click *Connect* tab, confirm that *Enable auto connect* is not checked, and click *Apply*.



Note: If *Enable auto connect* is checked, uncheck it.

4 Click *OK* and close the application.

You have finished confirming settings.

Connect and Disconnect

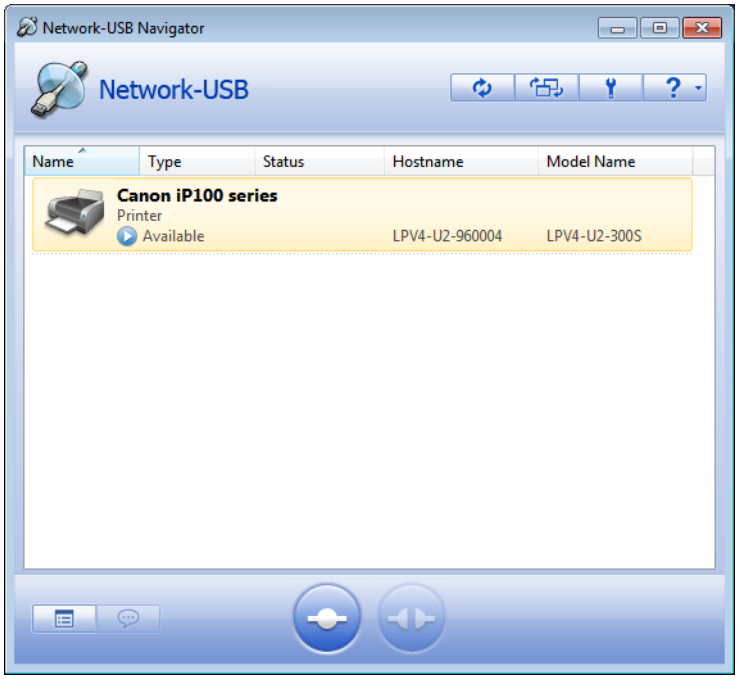
Connect to or disconnect your printer with Network-USB Navigator.

How to Connect to Printer

1 Open Network-USB Navigator.

- For Windows 8, select *Network-USB Navigator* from the *Start* screen.
- For Windows 7, Windows Vista and Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

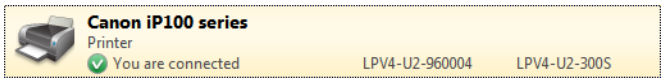
2 Select your printer and click (connect).



Note:

- If multiple USB devices are displayed, select the *LPV4-U2-300S*.
- If the printer driver installer is displayed, install the driver referring to the manual from your printer.

3 Confirm that *You are connected* is displayed.

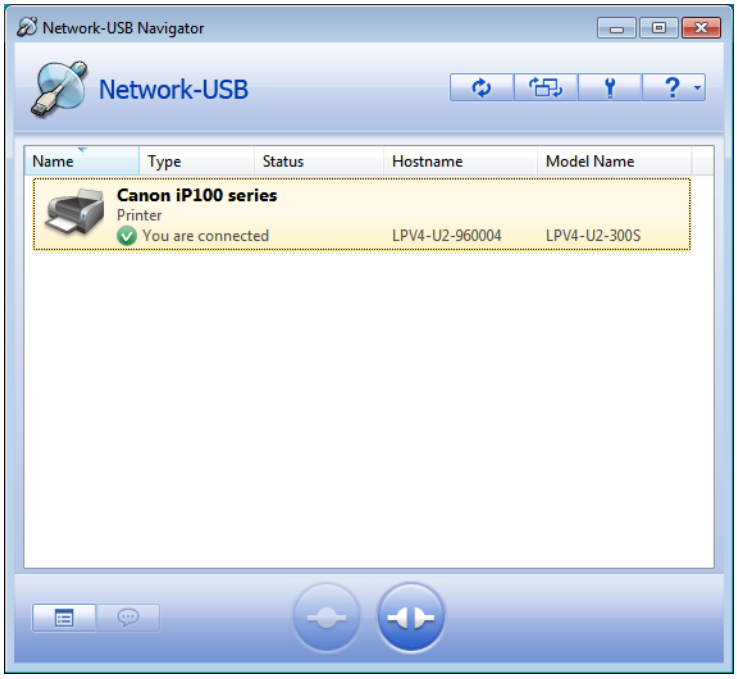


How to Disconnect Printer

1 Open Network-USB Navigator.

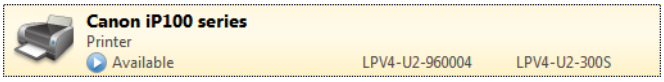
- For Windows 8, select *Network-USB Navigator* from the *Start* screen.
- For Windows 7, Windows Vista and Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

2 Select your printer and click (disconnect).



Note: If multiple USB devices are displayed, select the *LPV4-U2-300S*.

3 Confirm that *Available* is displayed.



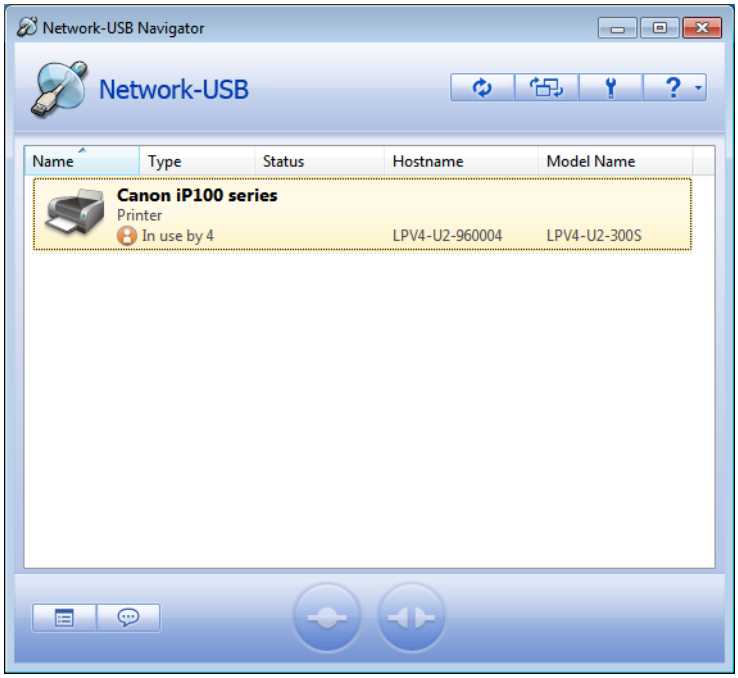
Send Disconnect Request

You can send a disconnection request to the user who is using the printer.

1 Open Network-USB Navigator.

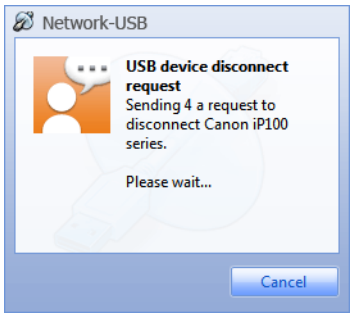
- For Windows 8, select *Network-USB Navigator* from the *Start* screen.
- For Windows 7, Windows Vista and Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

2 Select your printer and click (disconnect request).



Note: If multiple USB devices are displayed, select the *LPV4-U2-300S*.

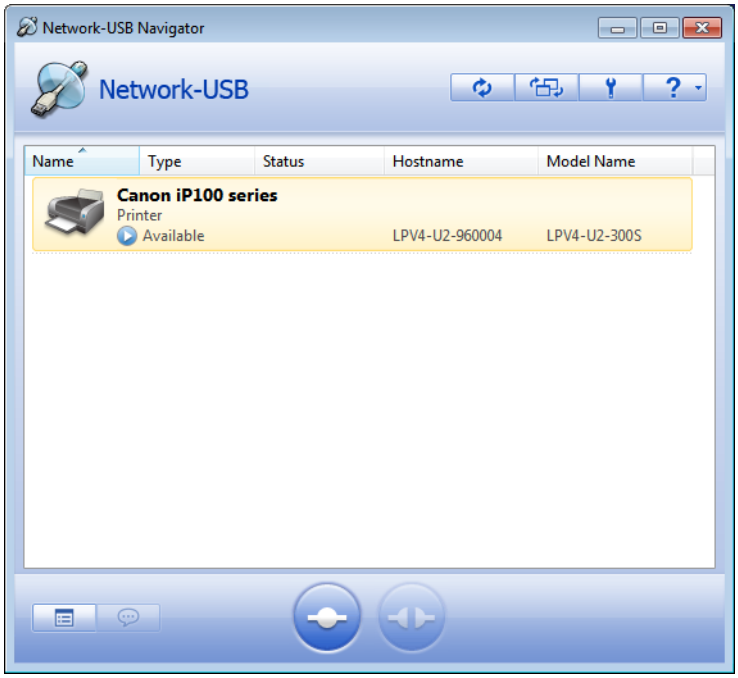
3 The disconnect request is sent to the user who is using the printer.



4 The window below appears on the desktop of the user who received the request. When the user clicks *Yes*, the printer will then be available for your use.

Main Window

Buttons



	Refreshes the screen.
	Changes the view of the list.
	Opens options.
	Opens help menu.
	Displays the properties of the selected device.
	Sends disconnect request to the user who is using the selected device.
	Connects to the selected device.
	Disconnects the selected device.

Status

Available	You can use the printer.
You are connected	You are connected to the printer.
In use	Another user is connected to the printer or the printer is printing.

Options

How to Open Options

1 Open Network-USB Navigator.

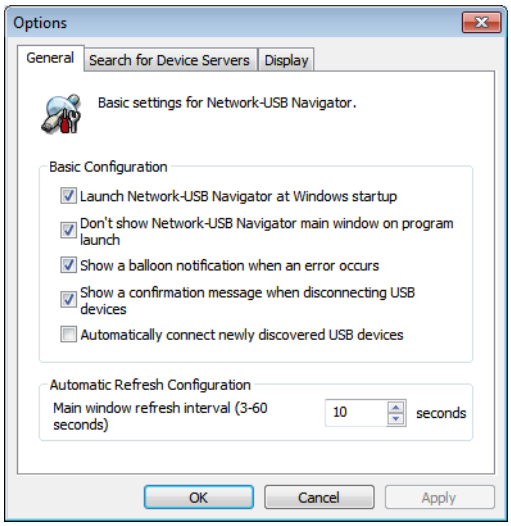
- For Windows 8, select *Network-USB Navigator* from the *Start* screen.
- For Windows 7, Windows Vista and Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

2 Click (options).

3 Options is displayed.

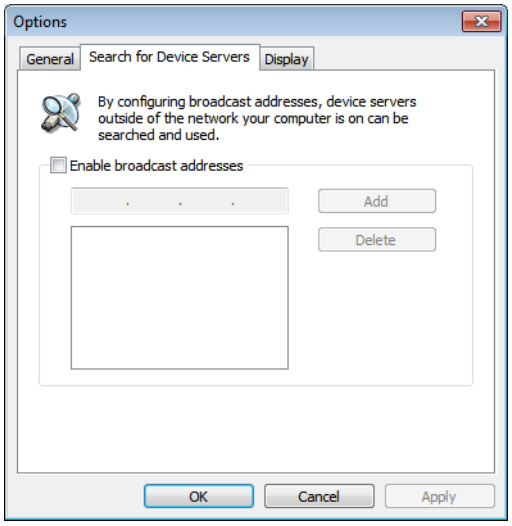
Description

General



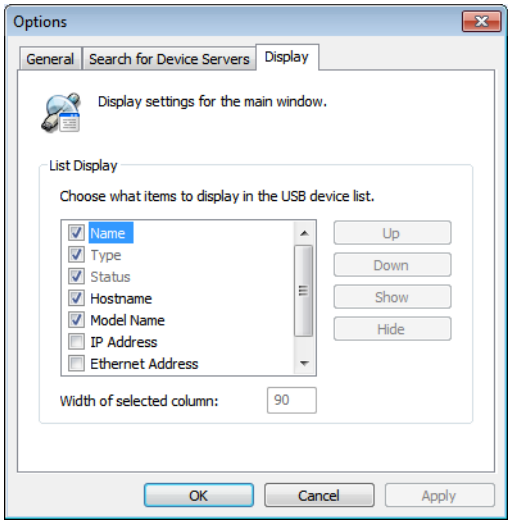
Launch Network-USB Navigator at Windows startup	Check to launch Network-USB Navigator at Windows startup.
Don't show Network-USB Navigator main window on program launch	Check to launch Network-USB Navigator minimized.
Show a balloon notification when an error occurs	Check to show a help balloon when Network-USB experiences a power surge or a USB device is not correctly disconnected.
Show a confirmation message when disconnecting USB devices	Check to show a disconnect confirmation prompt before disconnecting a USB device. A disconnect prompt is not shown when an application or the automatic printing feature initiates the disconnect.
Automatically connect newly discovered USB devices.	Check to automatically connect USB devices detected for the first time.

Search for Device Servers



Enable broadcast addresses	You do not need to enable for normal use. If your PC is connected to multiple networks, enter the broadcast address of the network which the print server is connected to.

Display



List Display	Set the display order and which items to show and hide in the USB device list. Checked items will be shown. Use *Up* or *Down* to change the selection order.

Notes

- Do not connect a USB hub to the print server. It may not work correctly.
- Devices are not automatically reconnected when resuming from standby or hibernation. Use Network-USB Navigator to reconnect them.
- Operation or configuration via Telnet is not supported.
- Do not disconnect or eject USB devices while they are being accessed.
- If your USB device doesn't automatically connect after detection, connect the device manually.
- If your USB device requires an AC adapter, be sure to connect it.
- For the latest information and updates, go to our website.

Chapter 3 - Settings

You can configure various settings of the print server.

Print Data from Your Mobile

You can use the ePrint app, available for iOS and Android, to print pictures or contact files directly from your mobile device. Refer to the following links for more information on ePrint.

Overview and procedure:

http://www.e-workshop-dev.com/PC_EN/eprint_e.html

Support for ePrint:

http://www.e-workshop-dev.com/PC_EN/inquiry_title_e.html

ePrint for iPad, iPhone, and iPod touch:

https://itunes.apple.com/en/app/eprint-free/id304220730?mt=8

ePrint for Android:

https://play.google.com/store/apps/details?id=jp.co.microtech.android.eprint_free&hl=en

Check Ink Level

Follow the procedure below to check your printer's ink level.

1. Open Network-USB Navigator and connect to your printer.
2. Use your printer's included utilities to check the ink level. You may disconnect the printer afterwards.

Use Scanning Function

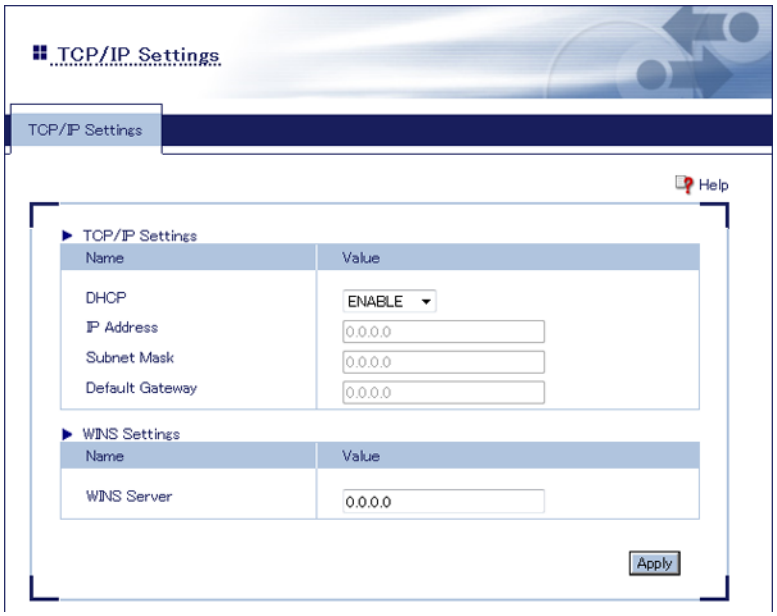
Follow the procedure below to use the printer's scanning function. The printer's driver may be required. For more information, refer to your printer's manual.

1. Open Network-USB Navigator and connect to your printer.
2. Use the printer's scanning function. You may disconnect the printer afterwards.

Change Print Server's IP Address

Follow the procedure below to change the print server's IP address.

1. Open print server Settings and log in.
2. Navigate to *Network - TCP/IP*.
3. Disable DHCP and manually configure the IP address, subnet mask, and default gateway; click *Apply* when finished.



Refer to the example below (if network is on 192.168.11.0).
DHCP - Disabled
IP address - 192.168.11.222
Subnet mask - 255.255.255.0
Default gateway - 192.168.11.1
WINS server - 0.0.0.0

Note: Only assign the print server a valid IP address, otherwise Settings cannot be accessed. If you cannot open Settings, initialize the print server, which restores all settings to factory default.

4 When "Restart the print server to save the settings. Restart now?" is displayed, click *OK*.

Switch from Wired to Wireless Connection

Follow the procedure below to switch wired connection to wireless connection.

There are 2 ways to do it: selecting from the wireless network list, or PIN method.

Notes:

- Wired connection and wireless connection cannot be used at the same time.
- WPA2-PSK (TKIP) is not supported.

Select Wireless Access Point from List

Before starting, the print server's connection method should be set to 'Auto'. The access point should also have SSID broadcast enabled and is not using WPA2-PSK (TKIP) encryption. Refer to Chapter 4 for more information.

1 Open print server Settings and log in.

2 Navigate to *Network - Wireless LAN*.

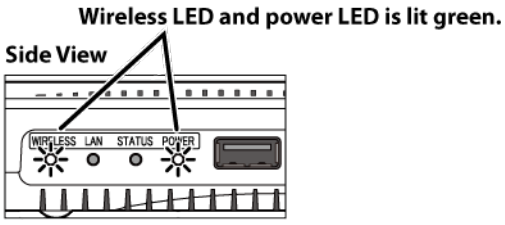
3 Select an access point; enter the encryption key and click *Apply*.

4 The settings are saved and the print server is rebooted.

5 Disconnect the Ethernet cable from the print server.

6 Disconnect the AC adapter, wait for about 10 seconds, then reconnect the AC adapter.

7 After about 30 seconds, check the LEDs on the side of the print server.



Note: If the wireless LED is blinking, the connection could not be established. Check the access point's encryption key and try again.

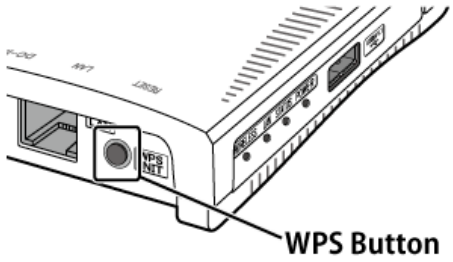
Connect by WPS Pushbutton Method

Before starting, the print server's connection method should be set to 'Auto'.

1 Disconnect the Ethernet cable from the print server.

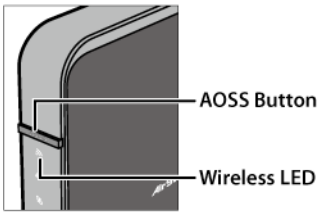
2 Disconnect the AC adapter, wait for about 10 seconds, then reconnect the AC adapter.

3 Wait for about 30 seconds. Then, press and hold the WPS button for about 5 seconds.

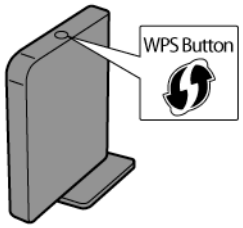


4 Press access point's AOSS or WPS button to start WPS.

For Buffalo router
(the following is an example)



For other router
(the following is an example)

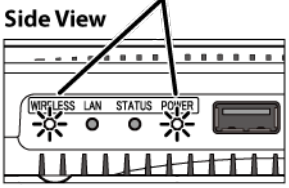


Note: If you are using Buffalo router, press and hold the AOSS button for at least two seconds to start WPS. This may be different for other routers.

5 Check the LEDs on the side of the print server.

Wireless LED and power LED is lit green.

Side View



Note: If the wireless LED is blinking, the connection could not be established. Try again from step 3.

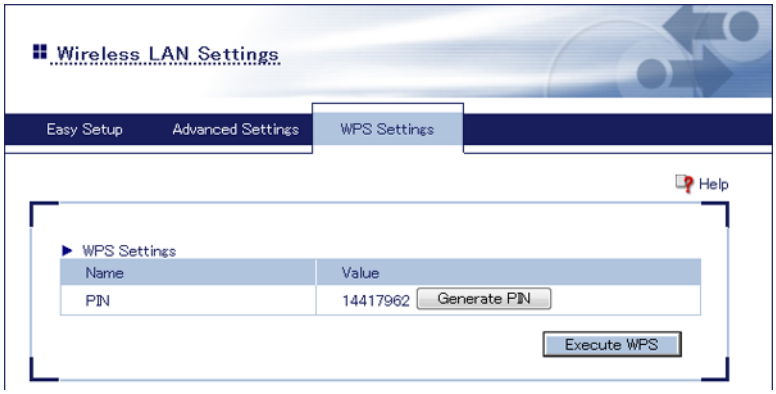
Connect by WPS PIN

Before starting, check that the connection method is auto.

1 Before starting, the print server's connection method should be set to 'Auto'. The target access point should have its WPS screen open.

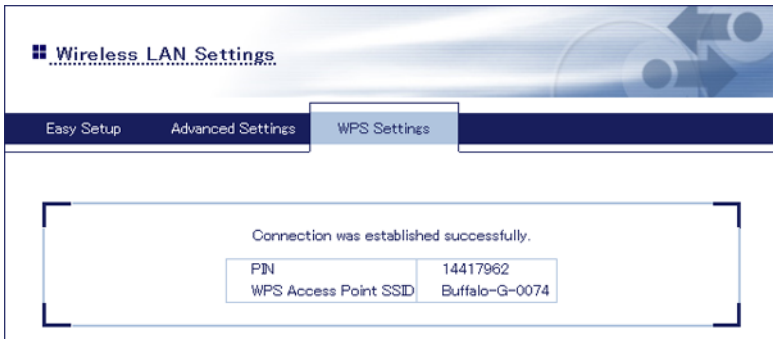
2 Navigate to *Network - Wireless LAN - WPS Settings*.

3 Note the displayed PIN, then click *Execute WPS*.



4 Within 2 minutes, register the PIN with the target access point.

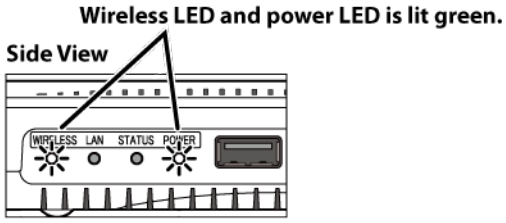
5 Confirm that "WPS Success" is displayed. If the following window is not displayed, the connection could not be established. Try again.



6 Disconnect the Ethernet cable from the print server.

7 Disconnect the AC adapter, wait for about 10 seconds, then reconnect the AC adapter.

8 Wait for about 30 seconds, then check the LEDs on the side of the print server.



Switch from Wireless to Wired Connection

Follow the procedure below to switch wireless connection to wired connection. The print server cannot use both wired and wireless connection at the same time.

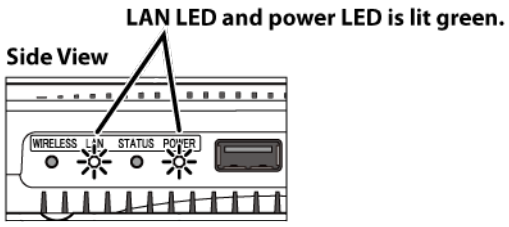
Before starting, check that the connection method is 'Auto'.

1 Disconnect the AC adapter from the print server.

2 Connect the print server to the router or hub with an Ethernet cable.

3 Connect the AC adapter to the print server.

4 Wait for about 30 seconds, then check the LEDs on the side of the print server.



Initializing the Print Server

You can initialize the print server by holding down the WPS button, or from within Settings.

Press WPS Button

1 Disconnect the AC adapter from the print server.

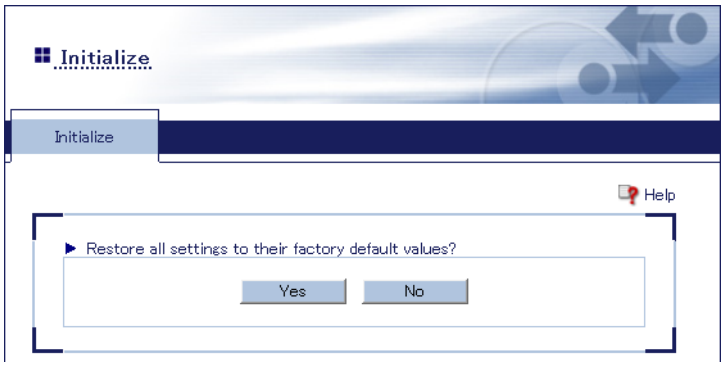
2 Reconnect the AC adapter to the print server while holding down the WPS button.
Hold down the WPS button until the power LED blinks green.

Configure in Settings

1 Open print server Settings and log in.

2 Navigate to *Maintenance - Initialize*.

3 Click *Yes*.



4 When "Restore all settings to their factory default settings?" is displayed, click *Yes*.

Chapter 4 - Troubleshooting

Cannot Print

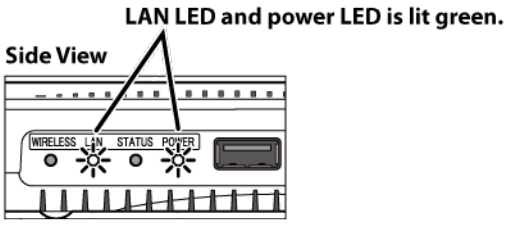
Case 1: Printer is not ready.

Confirm that the printer's power is on, and there is enough ink and paper.

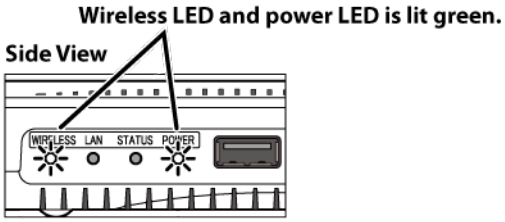
Case 2: Print server is not connected correctly.

Check the LEDs on the side of the print server. If it is connected correctly, the LEDs will be lit as shown below.

For wired connection:



For wireless connection:



Note: If the LAN LED is not lit while an Ethernet cable is connected, check the router and its connection.

Case 3: Connected to the printer using Network-USB Navigator.

If the printer is connected to Network-USB Navigator, you cannot print. Disconnect the printer from Network-USB Navigator. Also, confirm that automatic connection is disabled.

Case 4: Hostname has been changed.

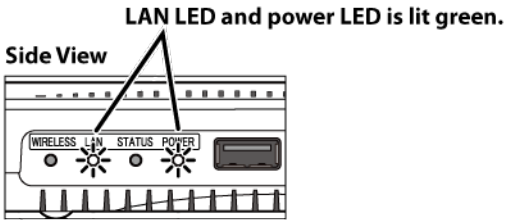
If you changed the print server's hostname, you have to reconfigure the printer port. Refer to the "How to Reconfigure Printer Port" section.

Cannot Access Print Server from PC

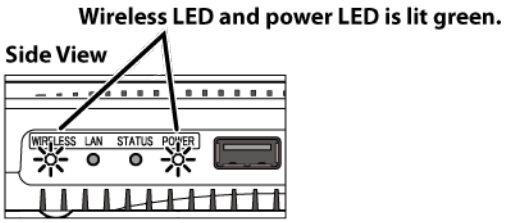
Case 1: Print server is not connected correctly.

Check the LEDs on the side of the print server. If it is connected correctly, LED is as the following.

For wired connection:



For wireless connection:



Note: If the LAN LED is not lit while an Ethernet cable is connected, check the router and its connection.

Case 2: The IP address is invalid.

If print server was assigned an invalid IP address, Settings cannot be accessed. If you cannot open Settings, initialize the print server, which restores all settings to their factory default values.

Print Server Is Not Displayed on LPV4 Port Setup Wizard

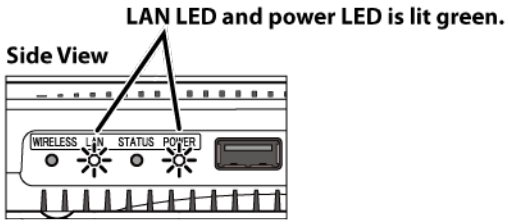
Case 1: The IP address is invalid.

If you set the print server's IP address improperly (such as broadcast address), you cannot access Settings. If you cannot access Settings, initialize the print server. Note that initialization will restore all settings of the print server to the factory default.

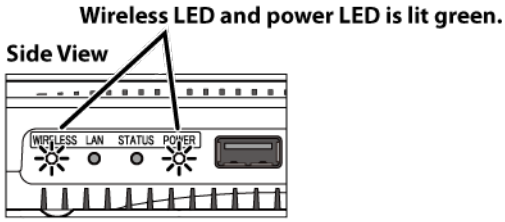
Case 2: Print server is not connected correctly.

Check the LEDs on the side of the print server. If it is connected correctly, LED is as the following.

For wired connection:



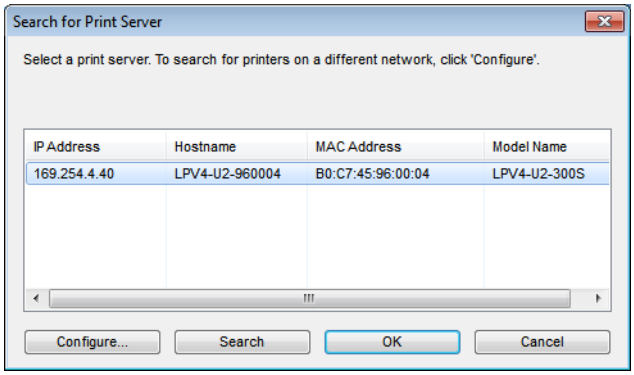
For wireless connection:

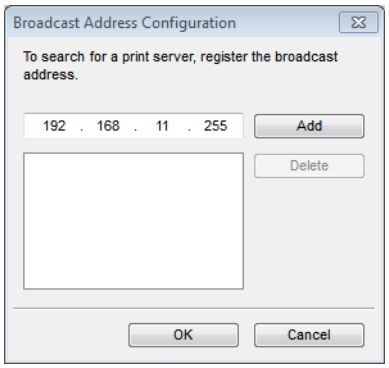


Note: If the LAN LED is not lit while an Ethernet cable is connected, check the router and its connection.

Case 3: Using a PC with multiple network interfaces.

Open LPV4 Port Setup Wizard and navigate to *Search for Print Server...* - *Configure....* Add the broadcast addresses of the network that the print server is connected to.





Print Server Is Not Displayed on Network-USB Navigator

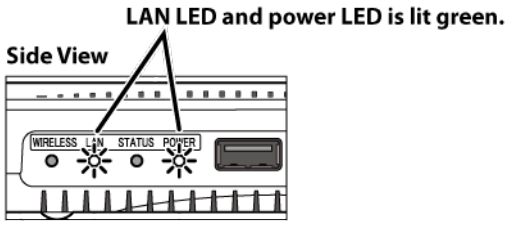
Case 1: The IP address is invalid.

If print server was assigned an invalid IP address, Settings cannot be accessed. If you cannot open Settings, initialize the print server, which restores all settings to factory default.

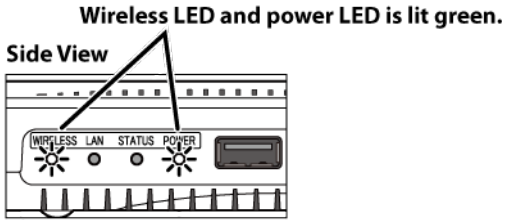
Case 2: Print server is not connected correctly.

Check the LEDs on the side of the print server. If it is connected correctly, LED is as the following.

For wired connection:



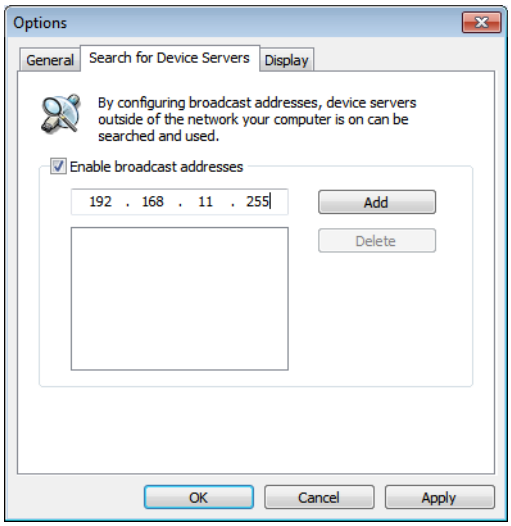
For wireless connection:



Note: If the LAN LED is not lit while an Ethernet cable is connected, check the router and its connection.

Case 3: Using a PC with multiple network interfaces.

Open Network-USB Navigator and options menu. Click *Search for Device Servers* tab and check *Enable broadcast addresses*, then add broadcast addresses of the network that the print server is connected to.



Cannot Find Access Point from Settings

Case 1: The access point is turned off.

Confirm that the access point is turned on.

Case 2: The access point has SSID broadcasting disabled.

You will never find the access point if it disables broadcasting SSID. Navigate to *Network - Wireless LAN - Advanced Settings* and configure manually.

Case 3: The access point sets the authentication method as WPA2-PSK (TKIP).

WPA2-PSK (TKIP) is not supported.

Cannot Connect Wirelessly Using WPS

Case 1: The access point is using WEP encryption.

If the encryption method is set to WEP, you cannot use WPS to connect to the access point. Navigate to *Network - Wireless LAN - Advanced Settings* and configure manually.

Case 2: The access point has SSID broadcasting disabled.

You will never find the access point if it disables broadcasting SSID. Navigate to *Network - Wireless LAN - Advanced Settings* and configure manually.

Case 3: The access point is using WPA2-PSK (TKIP) authentication.

WPA2-PSK (TKIP) is not supported.

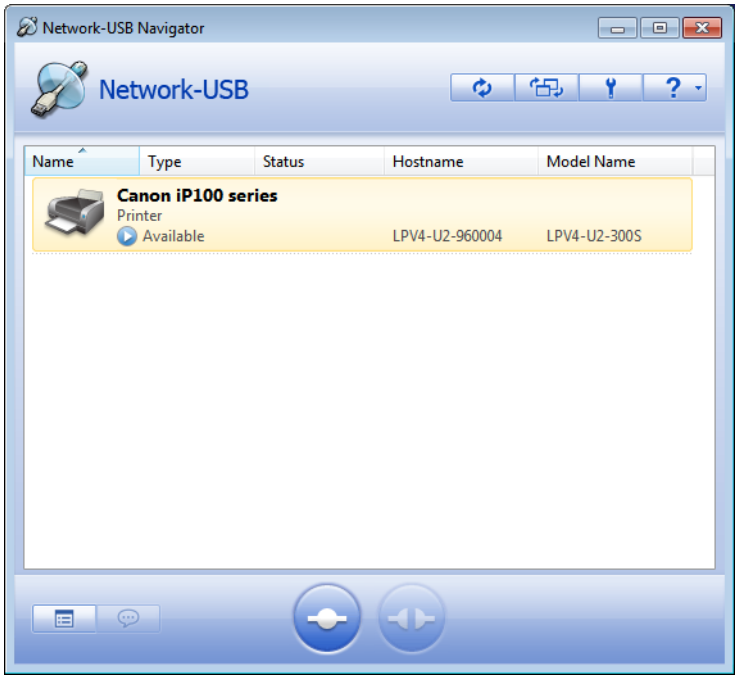
Forgot IP Address

You can check the print server's IP address by using Network-USB Navigator.

1 Open Network-USB Navigator.

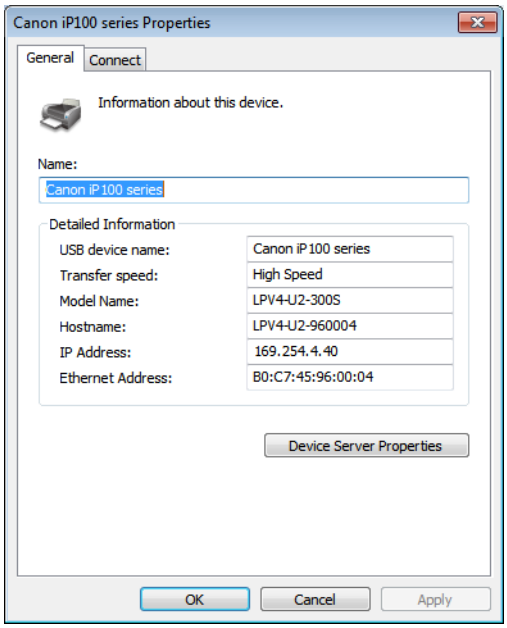
- For Windows 8, select *Network-USB Navigator* from the *Start* screen.
- For Windows 7, Windows Vista and Windows XP, navigate to *Start - All Programs - BUFFALO - Network-USB - Network-USB Navigator*.
- For Mac OS, click the Network-USB Navigator icon in the dock.

2 Select your printer and click (properties).



Note: If multiple USB devices are displayed, select the *LPV4-U2-300S*.

3 The print server's IP address is displayed in "IP Address".



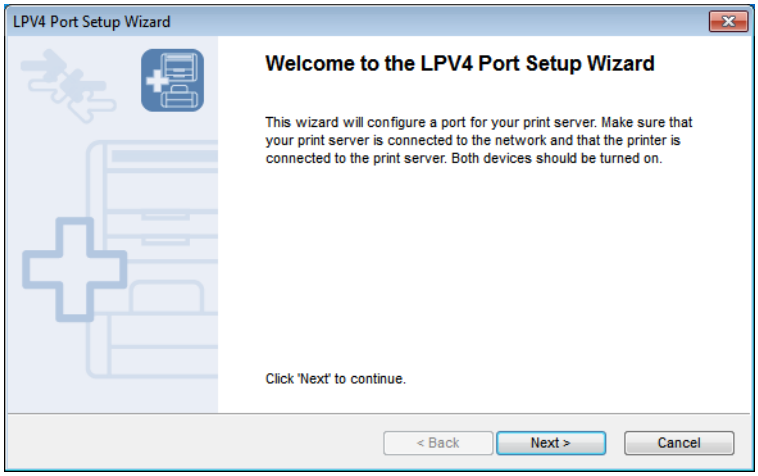
How to Reconfigure the Printer Port

Follow the procedure below to reconfigure the printer port. The procedure is different between Windows and Mac OS.

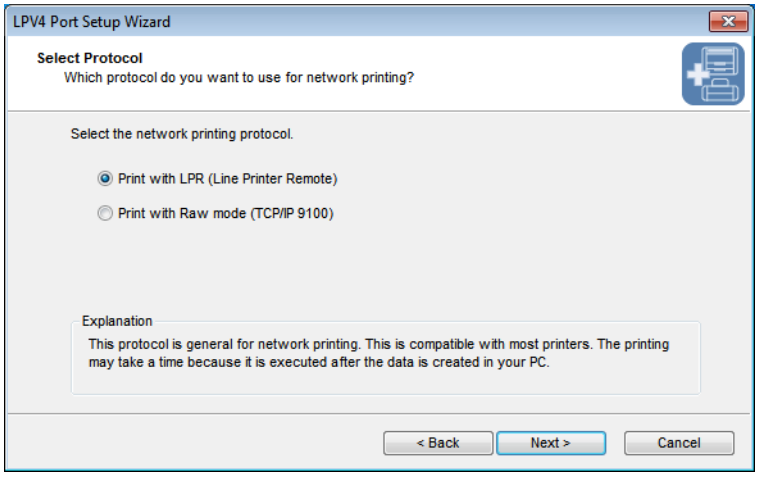
For Windows Users

1 Open the LPV4 Port Setup Wizard.
For Windows 8, Select *LPV4 Port Setup Wizard* in "Start" screen.
For Windows 7, Windows Vista, or Windows XP, Navigate to *Start - All Programs - BUFFALO - LPV4 Print - LPV4 Port Setup Wizard*.

2 Click *Next*.

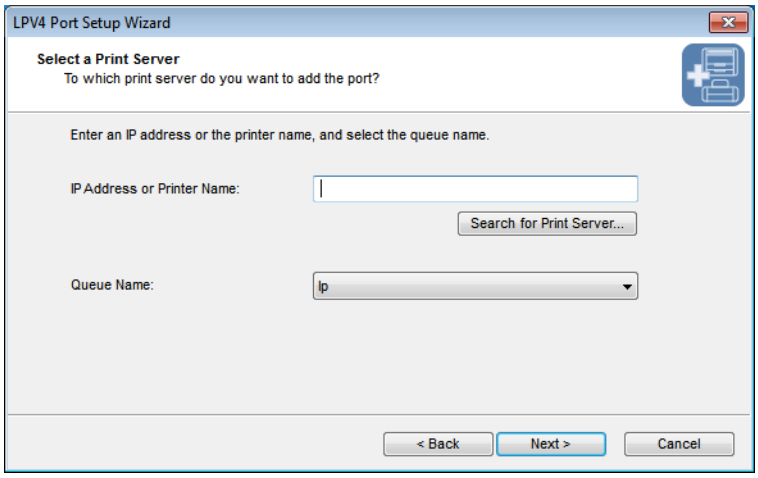


3 Select *Print with LPR (Line Printer Remote)* and click *Next*.

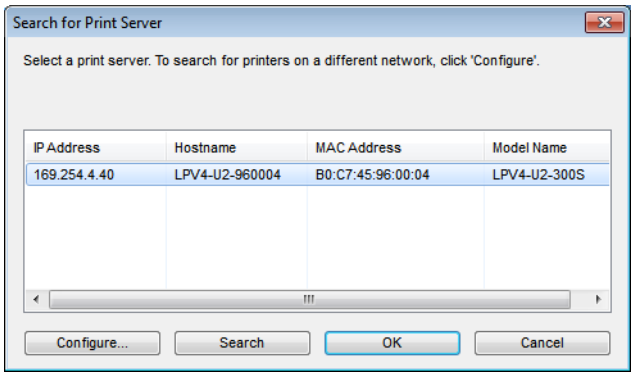


Note: Some printers may not support raw mode.

4 Click *Search for Print Server....*

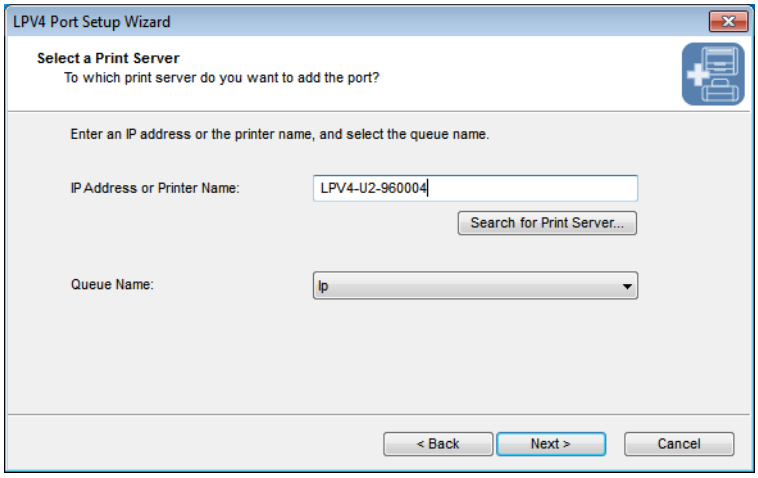


5 Select the print server and click *OK*.

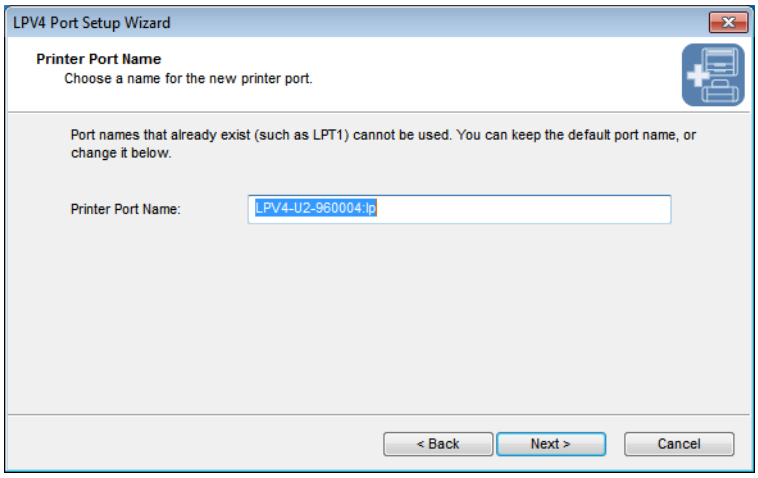


Note: If multiple print servers are displayed, confirm the MAC address or device name.

6 Click *Next*.

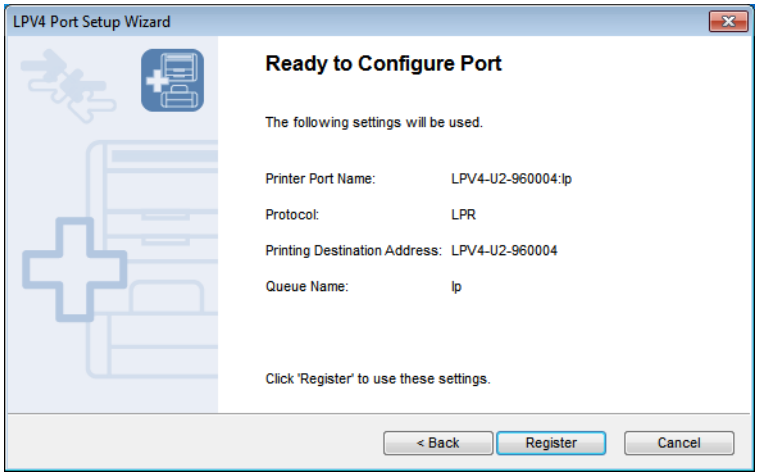


7 Click *Next*.

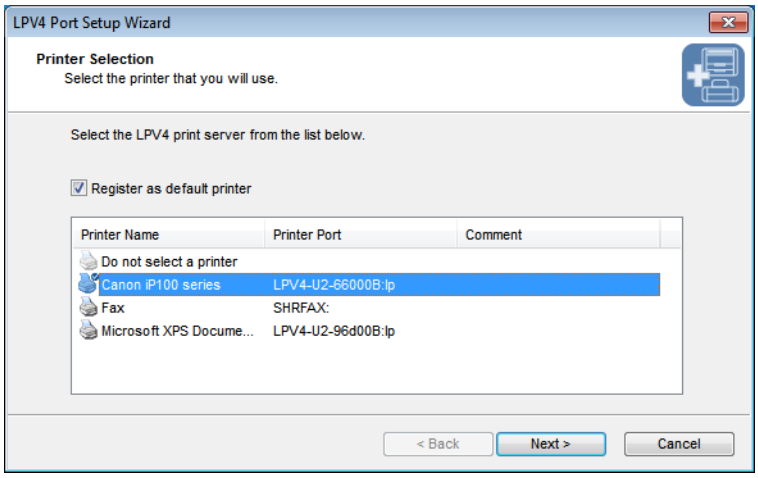


Note: If "The printer port xxxxxxxxxxxxxxxx already exists." is displayed, cancel the configuration and refer to the "Cannot Configure Printer Port with LPV4 Port Setup Wizard" section.

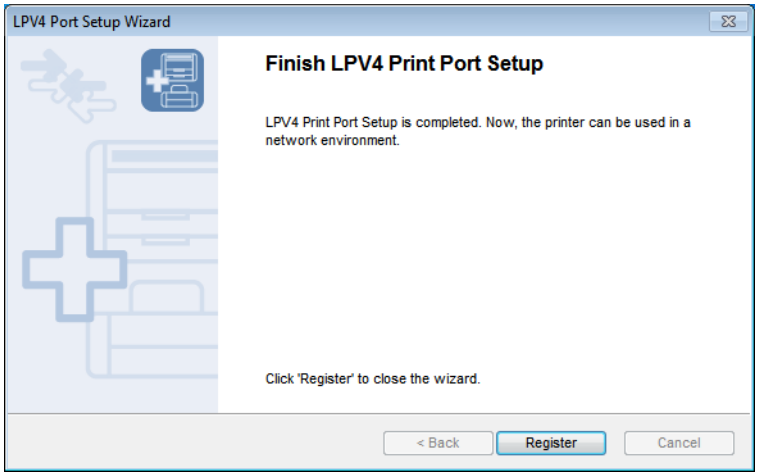
8 Click *Register*.



9 Select the printer connected to the print server, then click *Next*.



10 Click *Register*.



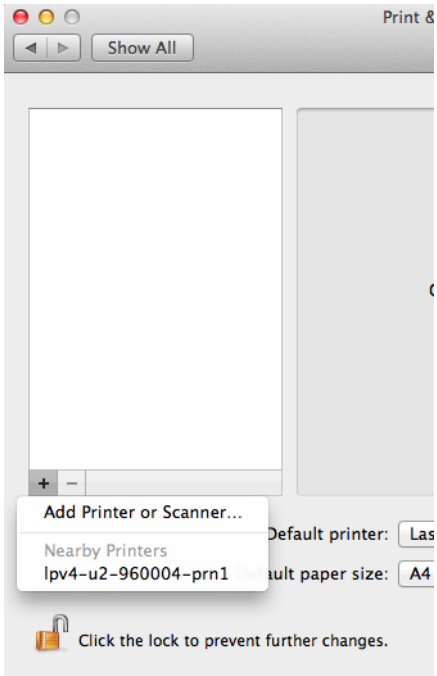
Now the printer is ready to be used.

For Mac Users

1 Navigate to *System Preferences* in Apple menu.

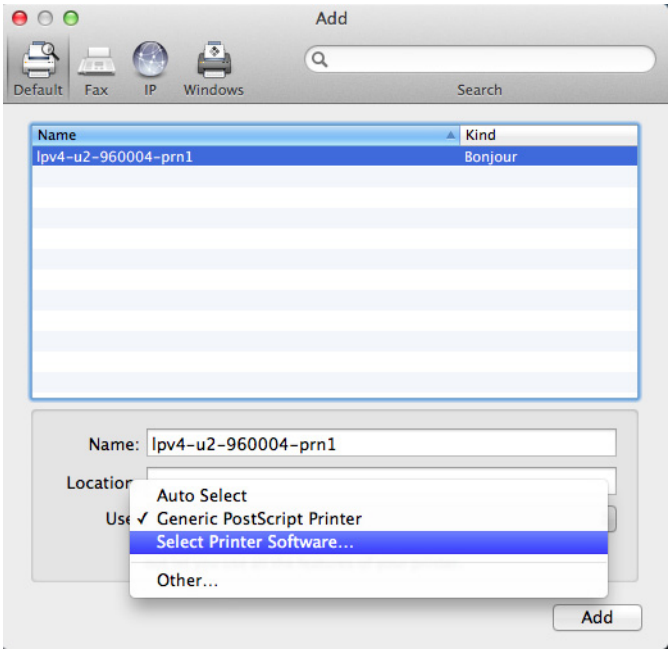
2 Click *Print & Fax*.

3 Click + and select *Add Printer or Scanner...*.



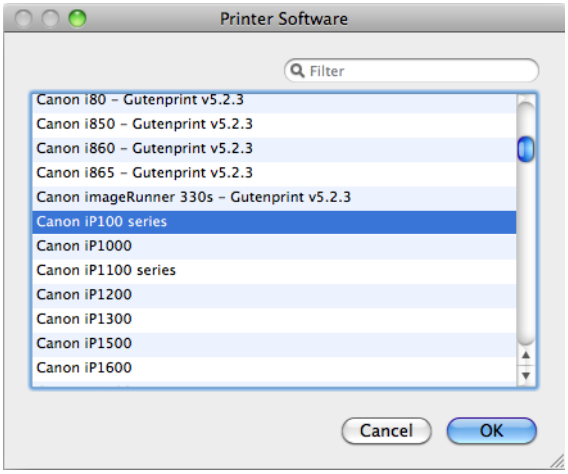
Note: If the screen from step 4 appears when you click + , follow step 4.

4 Select the print server (its suffix is "-prm1"), then select *Select Printer Software...* from "Use".

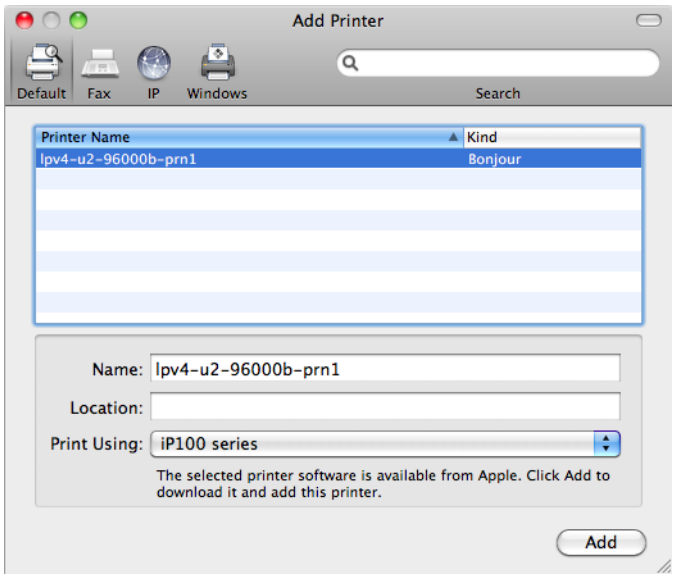


Note: If your print server is not listed, confirm that it is connected correctly and try again. If you find multiple print servers, check your print server's MAC address.

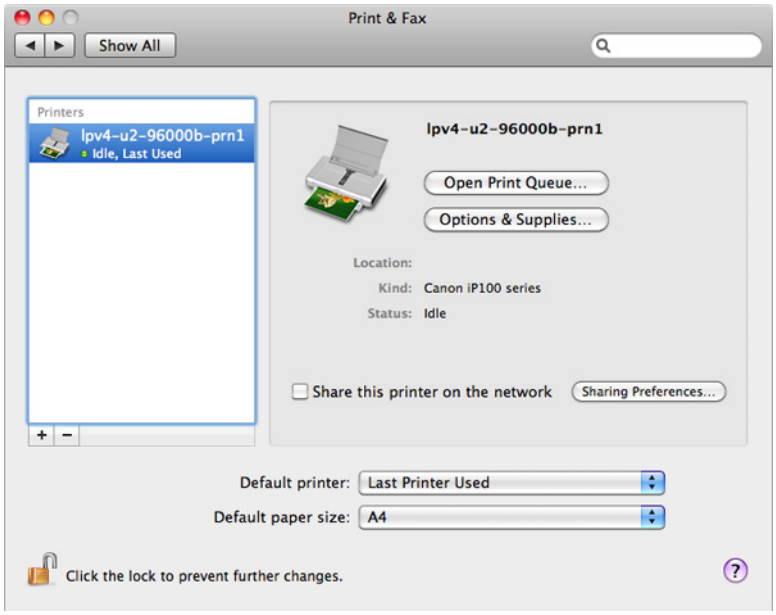
5 Select your printer and click *OK*.



6 Click *Add*.



7 Confirm that your printer is displayed.



Now the printer is ready to be used.

Cannot Configure Printer Port with LPV4 Port Setup Wizard

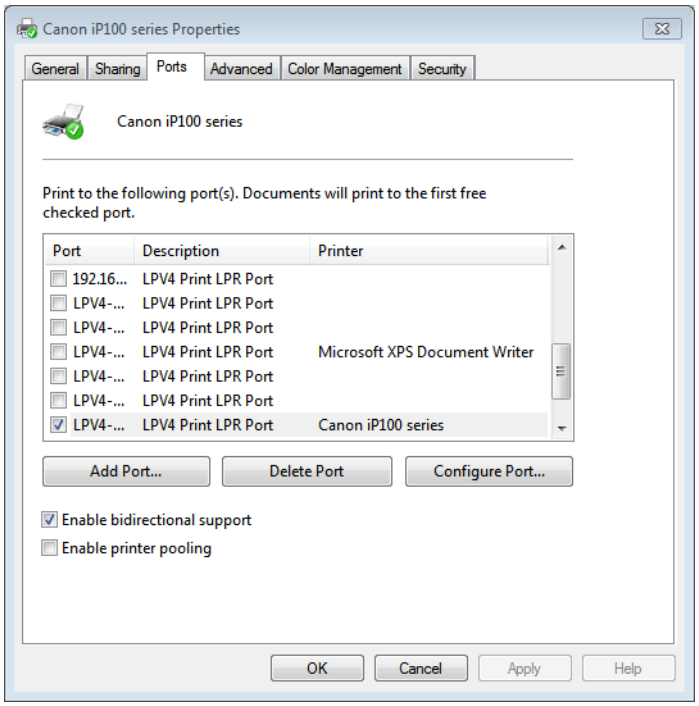
If the same port name is already registered, "The printer port xxxxxxxxxxxxxxxx already exists." may be displayed when registering the printer port.

In this case, follow the procedure below to delete unnecessary printer port settings.

1 Navigate to *Control Panel - Devices and Printers*, then open properties of your printer.

2 Click *Ports* tab.

3 Select an unnecessary port and click *Delete Port*.



Note: The port which is currently used is displayed as "LPV4 Print LPR Port" in "Description" and checked. You can delete ports that are not checked.

Appendix A - Supplemental Information

Technical Specifications

Wireless LAN Interface	
Standard Compliance	IEEE 802.11n / IEEE 802.11g / IEEE 802.11b
Transmission Method	Direct sequence spread spectrum (DSSS), OFDM, MIMO
Frequency Range	Available frequencies depend on the country of purchase.
Transmission Rate	IEEE 802.11n: up to 300 Mbps IEEE 802.11g: up to 54 Mbps IEEE 802.11b: up to 11 Mbps
Access Mode	Infrastructure Mode
Security	WPA2-PSK (AES), WPA-PSK (TKIP/AES), 64-bit or 128-bit WEP
Wired LAN Interface	
Standard Compliance	IEEE 802.3u (100BASE-TX) / IEEE 802.3 (10BASE-T)
Transmission Rate	10 Mbps or 100 Mbps
Transmission Encoding	100BASE-TX 4B5B/MLT-3, 10BASE-T Manchester Coding
Access Method	CSMA/CD
Speed and Flow Control	10 Mbps or 100 Mbps, Auto Sensing, Auto MDIX
Other Specifications	
Printer Interface	1 USB 2.0/1.1 port
Power Supply	External AC 100-240 V Universal, 50/60 Hz
Power Consumption	About 2.3 W (Max)
Dimensions	72 x 127 x 25 mm (2.83 x 5 x 0.98 in.)
Weight	100 g (3.53 oz.)
Operating Environment	0 - 40° C (32 - 104° F), 10 - 85% (non-condensing)
Compatible OS	**TCP/IP (TCP#9100, LPR)** Windows 8 (64-bit/32-bit), Windows 7 (64-bit/32-bit, SP1 or later), Windows Vista (64-bit/32-bit, SP2 or later), Windows XP (32-bit, SP3 or later), Mac OS (10.5, 10.6, 10.7, 10.8, Intel CPU only) **Bonjour** Mac OS (10.5, 10.6, 10.7, 10.8, Intel CPU only)
Compatible Printers	USB 2.0 or 1.1 Printers Only 1 printer can connect to the print server at a time. Interactive communication-only printers, WPS (Windows Printing System) printers, or GDI printers are not supported.

FCC and IC Notice

FCC Part 15.19

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Part.15.105(b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different

from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

FCC Part.15.21

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Exposure Warning

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

RSS102 2.6 Radiation Exposure Statement
Déclaration d'exposition aux radiations

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.